OHIO STATE UNIVERSITY
JUN 23 1953
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FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

JUNE, 1953

Explosion and fire in this Chicago plant killed 35, gave the 5-11 assignment of firemen a heartbreaking job (Story on page 504).

A CAZE SUERRERD MANN PUBLICATION

is Your Community protected

by the MOST EFFECTIVE resuscitating apparatus known to Science?

EMERSON Resuscitators

SIMPLE to operate, with no complicated adjustments.

SAFE for adults, children, or infants. There is no record of lung injury from the pressures used in thousands of cases in more than ten years.

EFFECTIVE The suction phase, alternating with the positive phase, helps circulation and can be of life-and-death importance, especially to victims in shock.

ACCEPTED by the American Medical Association for use by laymen (A.M.A. Journal, May 30, 1942). Relied on from coast to coast by thousands of leading hospitals and fire departments.

WRITE for our free

Medical Reference on Resuscitation

Information and Demonstration

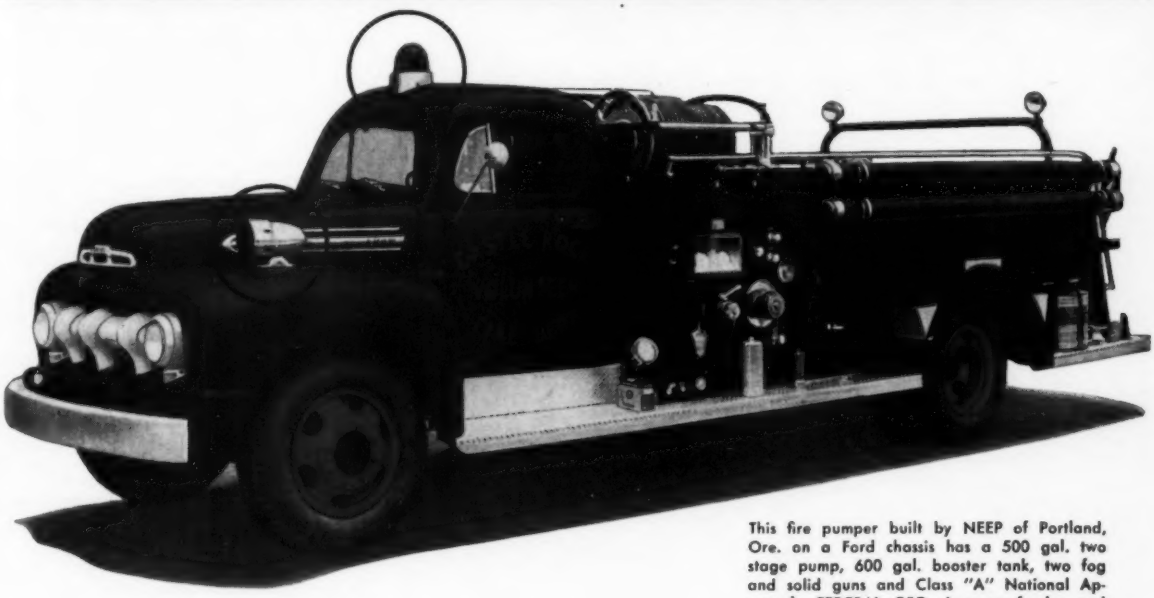
Bulletin on a New Manual Method of Artificial Respiration

"Simplest and Safest"

J. H. EMERSON COMPANY

32 COTTAGE PARK AVENUE, CAMBRIDGE 40, MASSACHUSETTS

"WE HAVE SPECIFIED FEDERAL ON ALL UNITS"



This fire pumper built by NEEP of Portland, Ore. on a Ford chassis has a 500 gal. two stage pump, 600 gal. booster tank, two fog and solid guns and Class "A" National Approval. FEDERAL C5G siren on fender and famous BEACON RAY light on cab roof.

This fine piece of equipment, with all of its modern fire-fighting talents has one final, complete touch:

COASTER SIREN and BEACON RAY LIGHT by FEDERAL!

Knowing the necessity of getting this fine unit to its rendezvous safely and quickly the manufacturer "specified" FEDERAL WARNING SIGNAL protection!

This protection works two ways, the coaster siren's authoritative roar warns the ear of the vehicles approach; the famous Beacon Ray's twin beams flashing around the 360 degrees of the compass alerts the eyes to the swift moving equipment.

These *combined* talents can be had for all fire apparatus. SPECIFY FEDERAL for safety of equipment and personnel.

Write today for information on the complete line of warning signals by FEDERAL.

FEDERAL ENTERPRISES, INC.

FORMERLY: FEDERAL ELECTRIC COMPANY, INC.

8702 SOUTH STATE STREET • CHICAGO 19, ILLINOIS

FIRE ENGINEERING

A Consolidation of FIRE AND WATER ENGINEERING, THE FIRE ENGINEER, FIRE PROTECTION *and* FIRE SERVICE

FRED SHEPPERD
Editor

ROI B. WOOLLEY
Assistant Editor

CONTENTS

Vol. 106 — June, 1953 — No. 6

	Page
With the Editor — By Roi B. Woolley	473
They Fight Fire with Film — By Cliff Dektar	474
Five Alarms Needed for Fire in Skyscraper under Construction	476
Arson Investigation — By Bernard W. Mulcahey	479
Practical Fire Service Rescue — By Joe Mahaffey	482
Fire Control Demonstrations Feature Fourth Annual Field Day — By Roi B. Woolley	484
Television and Radio Call Off-Shift Men to Pier Fire	486
News of the Manufacturers	489
False Alarms	492
The Round Table — Smoking in Bed	494
Short Cuts and Gadgets	504
The Watch Desk — By Roi B. Woolley	506
With Our Readers	508
What's Burning?	509
Among the Buffs — By Paul C. Ditzel	511
World-Wide Fire News	513
Convention Dates	518
Obituaries	522
Persons in the News	524
Book Shelf	527

MEMBER
Audit Bureau of Circulations
Associated Business Publications

For Posterity

IT is nothing new for readers of FIRE ENGINEERING to cherish—even hoard, their copies of this Journal year after year. Nor is it unusual to have readers buy binders for their copies in order to preserve them for future reference. However, it is a bit out of the ordinary to have one of the Faithful prize his copies so much that he wills them to posterity.

● Just the other day we received a check for two binders with this letter:

● "You might be interested in the fact that I have been a subscriber to FIRE ENGINEERING since 1926 (twenty-seven years). I have retained all my copies and most of them are in excellent condition. Recently I made out my will—in which I have provided that my library of firemanic materials be given on my death to some library or fire department who will keep and use the library for reference purposes.

● "Realizing that paper covered magazines would soon wear out in use, it is my intention from time to time to provide suitable binders so that when I am through with the library it can be handed down without fear of its being reduced to scrap paper within a short period of time."

J. D. G.

●Thus does posterity—and "J. D. G."—insure some lucky fire department or library a "solid foundation" of fact and figure about fire protection and prevention. And thus again are demonstrated the qualities which have made FIRE ENGINEERING the preferred "Journal of the Fire Service" for over 75 years!

The Publishers

FIRE ENGINEERING

The Journal of the Fire Profession since 1877; published on the fifteenth of each month by Case-Shepperd-Mann Publishing Corp., 24 West 40th St., New York 18, N. Y., also publishers of *Water Works Engineering, Wastes Engineering*, etc. ¶Subscription price: U. S., Latin America and Canada, $3.50 a year; Foreign, $4.50; Single copies, 40c. ¶Member of Audit Bureau of Circulations and Associated Business Publications, Inc. ¶Entered as second-class matter April 15, 1929, at the Post Office at New York, N. Y., under Act of March 3, 1879.

¶Contents of this issue copyrighted, 1953, by Case-Shepperd-Mann Publishing Corp.

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A CASE-SHEPPERD-MANN PUBLICATION
"*Specialized* Leadership"

FABRIC FIRE HOSE

THE ONLY EXCLUSIVE MANUFACTURER OF FIRE HOSE IN AMERICA

One, inch and three quarter and three, inch and one eighth tips. One hundred twenty five pounds nozzle pressure. 2300 Gal. Per Min.
PERFECT BALANCE PERFECT CONTROL

QUALITY STANDARD OF THE INDUSTRY

FABRIC FIRE HOSE COMPANY

SANDY HOOK, CONN.

engineered FEATURES

INCREASE FIRE-FIGHTING EFFICIENCY

WITH MIDSHIP PUMP

WHEN you trade an older car and drive a new model, you realize the value of *new and better features!* It's the same with fire apparatus. That's why we're constantly engineering, perfecting and *proving* selected features that *add ever-greater efficiency* to your truck and service.

Here are top-ranking examples—Governor with Finger-Tip Control—No Adjustments Necessary . . . Ball-Type Discharge Valve with Remote Control Locking Handle . . . Rear Filler with Spring-Loaded Valve which doubles as Relief Valve to protect Booster Tank . . . Dual Reels with Electric Rewinds and Pressed Metal Wheels . . . Tank Float Water Level Gauge . . . Natural-Finished Oak Hose Bed Floor . . . Hose Bed Partitions . . . Special Rear Compartments.

You can choose the truck chassis you want . . . with famous Barton-American Midship or Front-Mounted Pumps . . . *plus* the unequalled Barton Super-Fog Gun! Yes . . . for engineered features that boost fire-fighting efficiency, look to American Fire Apparatus. Contact our nearest representative for *all* the details!

WITH FRONT MOUNTED PUMP

American

FIRE APPARATUS CO.

P. O. BOX 1024, MAIN ST. ROAD, BATTLE CREEK, MICH.

"Always Pioneering with Better Engineering!"

RESEARCH KEEPS **B.F.Goodrich** FIRST IN RUBBER

This hose gets into action faster, cuts loading time, saves space

HERE's the hose that's easier to handle—on or off the truck.

Fire King, developed by B. F. Goodrich, is 15% lighter—50% stronger—and 100% more satisfactory for the fire company that prides itself on speed and efficiency out on a run or back at the station.

Fire King is unusually light and flexible because of a chemically-produced fibre used *only* in B. F. Goodrich hose. This fibre is used as "filler" cords—the cords that go around the hose, and give it extra strength to take on top pressures. In fact, actual service tests prove that Fire King, tested to 600 pounds pressure, is 50% stronger than standard fire hose which is tested to only 400 pounds pressure.

Its easy "rackability" has made a Fire King enthusiast out of Chief Myrle Hunter (above at left), watching Delbert Maker do a smooth one-man job of racking Fire King hose on the Guthrie (Oklahoma) Fire Department pumper truck. Chief Hunter says Fire King coils and racks with no effort at all because it's light and *never twists*—yet it has all the strength needed—and then some.

Next time you're replacing or adding hose, ask your BFG Fire Hose Distributor to show you a sample of Fire King. Compare it with your present hose and see for yourself why Fire King's your smartest, most economical buy!

The B. F. Goodrich Company
Dept. M-47, Akron 18, Ohio

Without cost or obligation, please

☐ send me more information on B. F. Goodrich fire hose.

☐ have a BFG Fire Hose Distributor see me.

Name_____

Department_____

Address_____

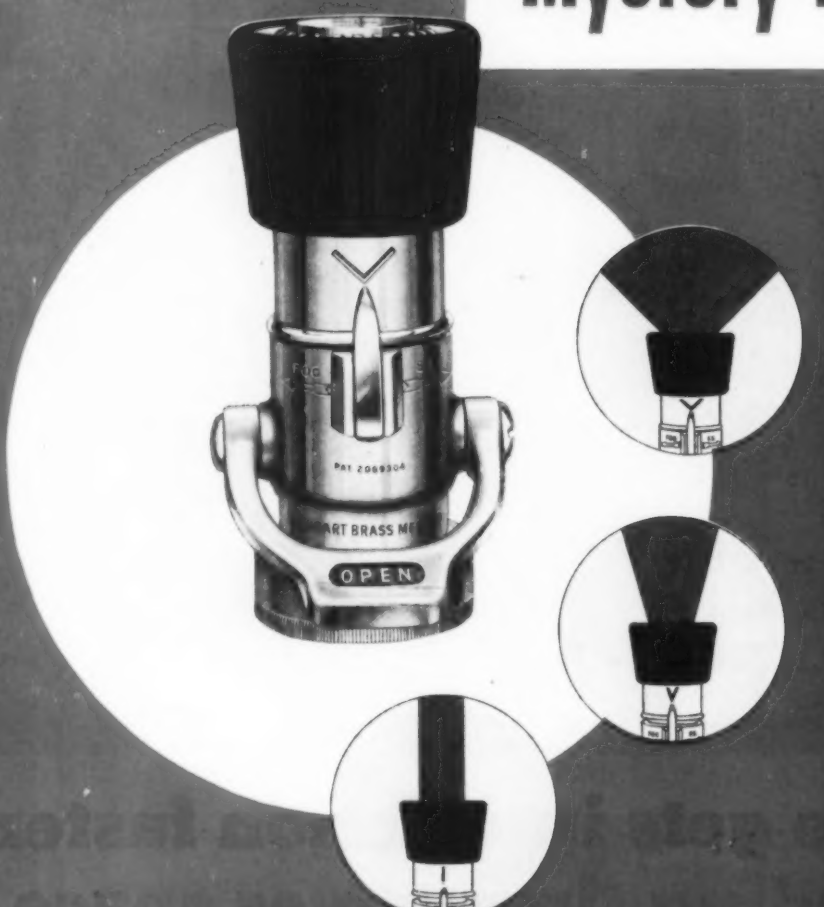
City_____ Zone_____

State_____

Fire Hose BY
B.F.Goodrich

Select-O-Stream

Mystery Nozzle



WITH THESE EXCITING FEATURES

SET TO ANY STREAM WITHOUT LOOKING
Embossed stream indicators automatically "tell" your fingers—selects the stream

☆

SHUTS OFF IN ANY POSITION

☆

SET TO TURN ON IN ANY POSITION

☆

LOCKS TO THE STREAM YOU CHOOSE

☆

SEPARATE BALL TYPE SHUT OFF
(Brass to neoprene seat)

☆

IMPROVED GRIP—
serves as both grip and bumper. Mechanically sealed—it won't come off

You get the stream you want—at a finger's touch. And you get it fast. No need to see it . . . the embossed (Braille-like) Stream indicators "tell" your fingers by touch. The SELECT-O-STREAM *MYSTERY NOZZLE* locks to the stream you choose. Shuts off in any position. Set to turn on in any position. Protective curtain of water at the wide "V" . . . 30° fog at the standard "V" . . . Straight Stream at the "I"—and any degree of stream in between. *Be sure to write for literature now!*

ELKHART BRASS MFG. CO., Inc.

OVER FIFTY YEARS OF FIRE FIGHTING PROGRESS

ELKHART, INDIANA

These Indiana, Iowa, and Ohio communities choose

Choose the Added Protection of Extra Traction to protect your community

Throughout the nation, the trend is to FWD Fire Engines. In both rural and urban communities, crews know they can depend on four-wheel-drive traction to help save time on every run. FWD provides maximum safety for crews, equipment *and* other vehicles. FWD equipment and accessories also deliver extra action and dependability at the blaze.

Write for the new book—"FWD Fire Engines." It pictures and describes the types of FWD equipment selected by many typical progressive communities. Helps you select equipment for your specific needs.

THIS IS WHY YOU NEED FWD EXTRA-TRACTION

SAFER CONTROL IN TRAFFIC — Start faster. Positive control permits greater speed. Avoid accidents because 4-wheel-drive assures superior steering.

REACH OUT-OF-THE-WAY PLACES — Get through to water supply in hard-to-reach sections. Drive over terrain that stops the conventional fire truck.

FULL CONTROL ON SNOW AND ICE — With front wheels pulling and back wheels pushing—drive swiftly, safely over icy or snow-blocked streets and roads.

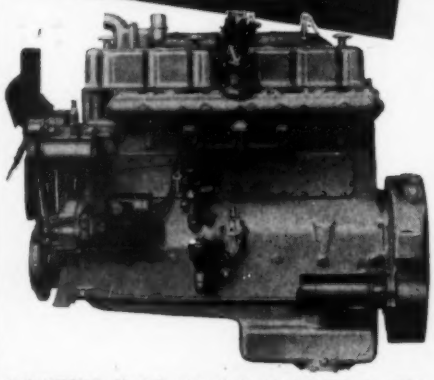
STEEP GRADES, MUD, SAND NO OBSTACLE — Drive hub deep through sand or mud. Pull up steep, slippery grades without losing speed. Save valuable time.

Built by the Makers of America's Foremost Heavy-Duty Trucks

THE FOUR WHEEL DRIVE AUTO CO., CLINTONVILLE, WIS., *Canadian Factory:* KITCHENER. ONT.

no vibration all power with WAUKESHA FIRE FIGHTER ENGINES

Hoses spouting . . . hoods up . . . engines running—yet even the eagle-eyed camera detects no movement of the trucks resulting from vibration. Their engines are Waukeshas! Here on Ward's Island in the East River you see the New York City Fire Dept. running a pump test on five of 27 new Ward LaFrance 85-T 750-gallon pumpers powered with Waukesha 145-GKB Fire Fighters, recently delivered to them. All 27 trucks—20 pumpers, 7 quadruple combinations—have 250 gallon booster tanks, deck guns, radios, life nets; and went into service with scaling ladders. Each quad, in addition to its 750-gallon pump, has a small 100 g.p.m. pump so it can keep moving, as at a brush fire—yet by simply opening the power take-off valve, can throw a good stream through its booster hose line.



WAUKESHA Model 145-GKB High Output FIRE FIGHTER Engine—Six-cylinder, 5¼-in. bore x 6-in. stroke, 779 cu. in. displ.; develops 240 hp at 2400 rpm. Arranged for full electrical equipment, air brake compressor and all modern accessories. Send for Bulletin 1594.

WAUKESHA MOTOR COMPANY • WAUKESHA, WISCONSIN

NEW YORK TULSA LOS ANGELES

196

Here's how this M·S·A "Mechanical Nose" sniffed out a fire before it started!

Reports of unexplained gasoline odors in a basement room of the 12-story Minneapolis Grain Exchange sent city Fire Department officials into action.

Order number one from Charles A. Johnson, fire prevention chief, cut off electrical equipment in the room—prohibited smoking in the area.

Preliminary inspection traced the gasoline vapors to a hollow stair-supporting post.

A hole was knocked in the stair wall and the air tested. The M.S.A. Explosimeter reading showed 10%. (A reading of 100% indicates an explosive mixture.)

Readings were taken from a hole in the floor—60%! Investigators, using the Explosimeter, began a search that wound through a four block area, and ended 150 feet from the Grain Exchange. Here, two 550-gallon gasoline storage tanks, in poor condition and leaking badly, were uncovered. The escaping gas, following the rock stratum, had found its way into the Grain Exchange. The tanks were removed, and a potentially disastrous explosion and fire was prevented.

THE M.S.A. EXPLOSIMETER

This device has proved its accuracy during use in routine inspections and in investigations of reported gas odors. In these services, the Explosimeter is helping Fire Departments everywhere do a better job of preventing fires caused by explosive gases and vapors. Its operation is simple, takes no special training. It is portable, light to carry, easy and inexpensive to maintain. Get the story today on the M.S.A. Explosimeter. Write, or call.

MSA
SAFETY EQUIPMENT HEADQUARTERS

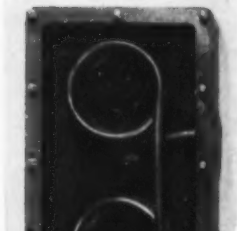
MINE SAFETY APPLIANCES COMPANY
BRADDOCK, THOMAS AND MEADE STS., PITTSBURGH 8, PA.
At Your Service: 68 Branch Offices in the United States
MINE SAFETY APPLIANCES CO. OF CANADA, LIMITED
Toronto, Montreal, Calgary, Winnipeg, Vancouver, New Glasgow, N.S.
Representative in Principal Cities in Mexico, Central and South America
Cable Address "MINSAF" Pittsburgh

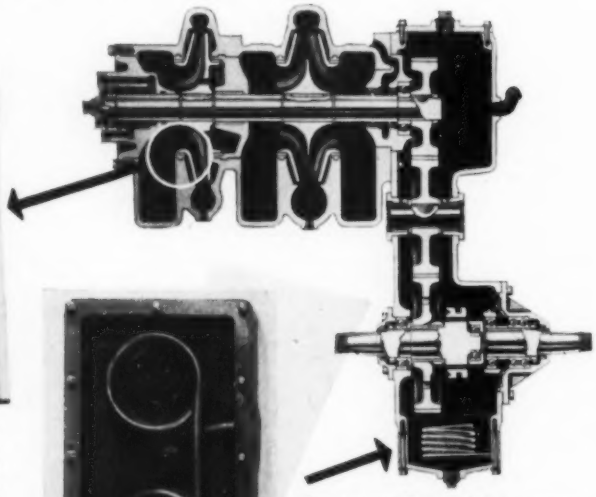
Call the M.S.A. man on your every safety problem . . . his job is to help you.

IN AMERICAN-LAFRANCE FIRE ENGINES

THERE'S *Extra Value* FOR YOU . . .

Replaceable seal rings both in pump housing and on each impeller. No machine work on housing or replacement of impellers required to restore original operating clearance. Seals are high strength hard bronze for maximum service life.





Copper cooling coils in pump transmission case insure proper oil temperature for gear and bearing lubrication under all conditions of operation. Cooling is automatic when pump is in operation.

Two of these Extra Values are in the TRIPLEFLOW pump —replaceable seal rings and transmission oil cooler

The TRIPLEFLOW pump is built in the American-LaFrance factory. The case is all bronze to maintain high efficiency throughout the service life of the pump. No corrosion to cause increased wear or loss of efficiency.

The impeller shaft is special type hardened stainless steel for long packing life. Packings are neoprene with automatic adjustment. Heavy duty ball bearings support the impeller shaft assembly for maximum service life.

• *Fifteenth in a series of advertisements showing the EXCLUSIVE EXTRA VALUES in American-LaFrance Fire Engines.*

• *For details of these EXTRA Values and MANY MORE, write for illustrated booklet.*

AMERICAN-LAFRANCE-FOAMITE CORPORATION
ELMIRA, NEW YORK, U. S. A.
LAFRANCE FIRE ENGINE AND FOAMITE LIMITED
TORONTO 9, ONTARIO, CANADA

Helping You Cut Fire Losses

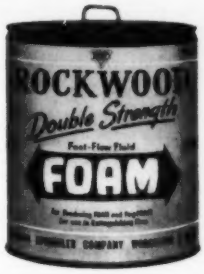
As leading manufacturers of fire fighting equipment, Rockwood makes many products that contribute vitally to the quick extinguishment or effective control of all kinds of fires. On this page are representative Rockwood products that daily play a vital role in fire protection programs throughout the nation.

For further details on these products, and many, many others, write for your free copy of the Rockwood Catalog, "Fire Fighting Products." ROCKWOOD SPRINKLER COMPANY, 54 HARLOW STREET, WORCESTER 5, MASS. Distributors in all principal cities.

ROCKWOOD SPRINKLER COMPANY

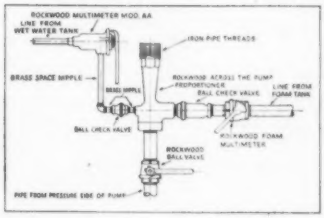
Engineers Water . . . to Cut Fire Losses

Type SG-48 WaterFOG Nozzle. Easy to handle. Discharges high or low velocity WaterFOG or straight water stream.



Double Strength Foam Liquid for fire hose line Nozzles and permanently piped FogFOAM and FOAM installations.

Type FFF FogFOAM Nozzle. Discharges FogFOAM, Solid FOAM stream, and High Velocity WaterFOG.

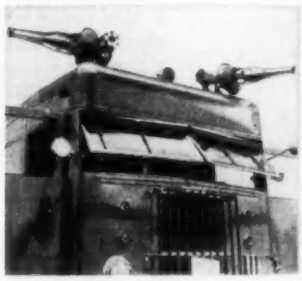


Proportioning systems. Used when pressure is maintained by pump. Custom-engineered systems also available.

Foam Eductor. Introduces FOAM liquid into hose lines. Used with Type FFF FogFOAM Nozzles.

High Capacity WaterFOG Nozzle. Quickly controls and extinguishes large fires in buildings and flammable liquids.

Type SG-60 Nozzle with FF Extension Unit. Five different kinds of discharges from only one nozzle.



Hydraulically or Manually Controlled Type FFF FogFOAM Turret Nozzle for airport crash fire fighting trucks and others.

The LITTLE MO

One Man Fire Fighter

A UNIVERSAL JUNIOR CRASH TRUCK

•

TWO OR FOUR WHEEL DRIVE

•

A RURAL TRUCK COMPLETE

•

PLAIN FOG
FOG FOAM
FOG WITH WATER WETTER—REGULAR 1½" LINES

Designed by W. Lewis "ARMY" Armstrong—Originator of the BLITZ BUGGY

• AMERICA'S MOST PRACTICAL FIRE FIGHTER •

Here is the most modern fire fighter ever devised for all around fire service—it will be at the fire and have it knocked down before regular pumpers can get lines down and into action — all operations can be handled from the cab by one man (except hand lines). Midship pump — turret and bumper nozzles all controlled from cab — delivers fog-foam — fog and foam in combination and fog with wetter water — hi-pressure fog on turret — or bumper nozzles — or on two hand lines.

ROCKWOOD *equipped* . . . .

ROCKWOOD FOAM (20 gallons)
ROCKWOOD WATER WETTER (5 gals.)
ROCKWOOD TURRET
ROCKWOOD BUMPER NOZZLES (2)
ROCKWOOD HI-PRESSURE NOZZLES (2) on HANNAY reels with 200 ft. of hose.

Four-stage bronze pump with power take-off, pumps while truck is in motion—200-gallon booster tank—pumps from draft like regular pumper.

Equipped with siren and flasher — spot lights — hose pick-up lights, axe, bar, 10 ft. ladder — hose body, gated rear suction —1½" discharge — gauges and valves for everything — convenient fillers for water, foam and wet water —

IN SHORT—HERE IS THE ANSWER TO A LOT OF FIRE FIGHTING PROBLEMS IN AN AWFUL LOT OF TOWNS—IDEAL FOR AIRPORTS — CIVIL DEFENSE — INDUSTRIAL PROPERTIES—IN FACT ANYWHERE—REGULAR FIRE SERVICE, OF COURSE.

You owe it to yourself to investigate this modern fire fighter — it can save you time and save you money — and it's the fastest foe of fire anywhere.

GET THE COMPLETE STORY BY WRITING TODAY

ARMY'S FIRE SERVICE

W. Lewis "ARMY" Armstrong and Lewis G. Armstrong

Box 186 **OLD FORGE, N. Y.** **Phone 81**

Here's performance you can count on

RCA 2-WAY RADIO

Straight-Forward Circuits to bring your message in without interference—even when you're operating close to an adjacent-channel transmitter.

Automatic Modulation Control to lower loud voices, raise weak voices, to correct level, without distortion.

Long Tube Life for dependable, low-maintenance service. Half the tubes operate at 1/5 maximum ratings.

Full Frequency Range: Fleetfone 30-50 mc, Carfone 152-174 mc.

Fits Anywhere: Transmitter-receiver unit takes no more space than a spare tire, mounts in any position, operates at low drain on 6- or 12-volt battery.

Stable Performance for minimum distortion. Ovenless crystals stay on frequency without warm-up, without wasting stand-by power.

Single-Case Construction for easy tuning and servicing. Offers plenty of protection—makes chassis and all components instantly accessible.

For Extra Dependability, installation and service facilities of the RCA Service Company are available.

* * *

For Complete Details on RCA 2-Way Radio contact the Communications Specialist at your nearest RCA Office or MAIL COUPON NOW.

RADIO CORPORATION of AMERICA
COMMUNICATIONS DIVISION **CAMDEN, N. J.**

Radio Corporation of America
Communications Division
Dept. 50R, Building 15-1
Camden, N. J.

Please send me information on RCA 2-Way Radio
☐ Carfone ☐ Fleetfone
☐ Have RCA Representative call

Name_____

Address_____

Company_____

City_____ State_____ Zone____

ANNOUNCING!

Pocketaire*

Self Contained Breathing Equipment

A NEW TYPE OF MASK

- **Weight Complete—4 Lbs.**
- **Pocket Size**
- **More Safety Features**
- **Pleasant To Use**
- **Low First Cost**
- **Easy Recharging**
- **Low Recharging Cost**
- **Field Tested And Approved**

Pocketaire provides complete breathing protection. Put on with the firecoat, it is ever ready for investigation, ventilation, fire fighting, rescue, or escape.

Equip a Full Crew Instead of Two

Breathing Equipment On The Man Instead Of On The Truck
Means
Protection When He Needs It

FOR THE FULL STORY ON THIS IMPORTANT DEVELOPMENT

SEE YOUR DEALER
OR
WRITE DIRECT TO—

CYCLE-FLO CO.
MILFORD, CONN.

*Patents Pending

Take Your Choice of BROKEN WATER EQUIPMENT

FROM THE COMPLETE AKRON BRASS LINE

• It pays to choose broken water equipment from the only complete line in your industry. When you buy spray or fog equipment from Akron Brass, you're sure of getting the nozzles that best meet the needs of your own requirements. Equally important, you're sure of getting the best equipment in the industry, designed by the engineers who pioneered spray and fog equipment. Mail coupon today for data and prices on broken water equipment.

New Akr-O-Mist Double Shut-Off Vapor Nozzle

• Has many of the famous features of the Akr-O-Mist Nozzle below, but with a double shut-off feature. Water stream is stopped by turning nozzle to the extreme right or left. Opens from shut-off to Fog, preventing water damage.

AKR-O-MIST DOUBLE CONE VAPOR NOZZLE

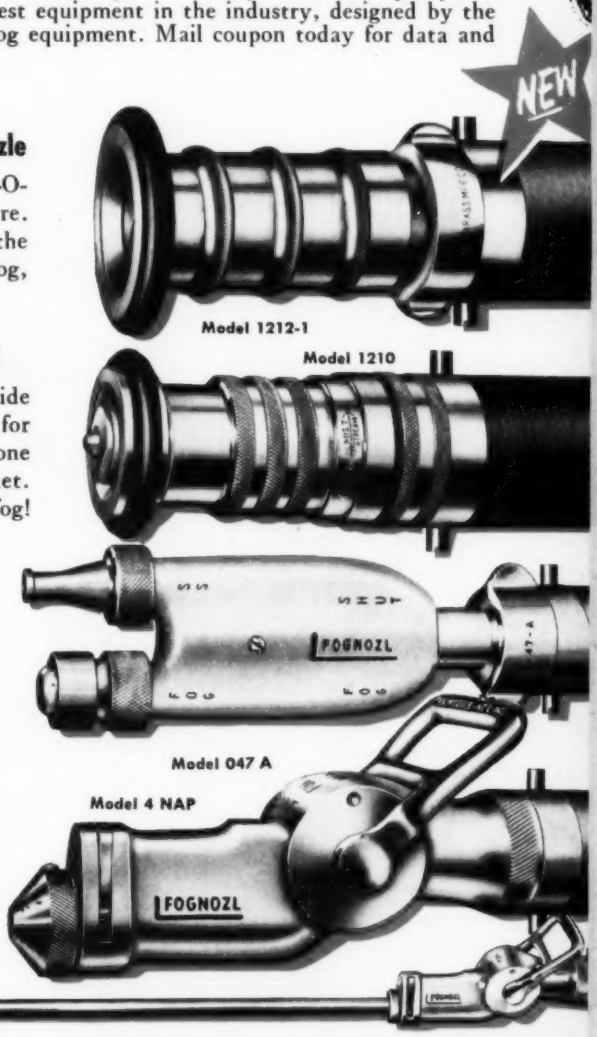
• Has a double adjustable conical vapor for wide coverage. Outer cone forms protective curtain for fireman, stops flash back, smothers fire. Inner cone completes fog pattern, eliminates vapor pocket. Only Akr-O-Mist nozzles open from shut-off to fog!

BOOSTER FOGNOZL®

• This low cost booster fog nozzle is a must for every fire department. Ideal for fighting chemical, oil, grease, paint, gasoline, grass, brush, trash and lumber fires. Only ⅓ turn from shutoff to fog—from fog to straight stream. Operates at all pressures.

FOGNOZL® AND FOGNOZL® APPLICATORS

• Universally recognized as the finest fog fighting equipment. The only fog nozzle that gives you a true solid straight stream, as well as fog. Ideal for night fighting, your fingers tell you its position. Use Fognozl Applicators to conquer fires in spots impossible to reach effectively with other equipment.



AKRON BRASS MFG. CO. INC.

FOG NOZZLE INTERNATIONAL

DIVISION OF AKRON BRASS

General Sales Offices: Wooster, Ohio

MAIL THIS COUPON TODAY!

Akron Brass Mfg. Co., Inc., Wooster, Ohio

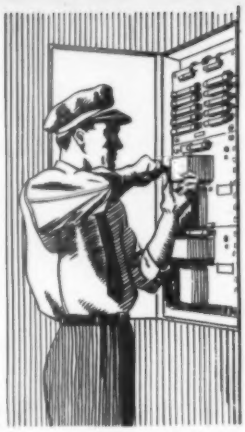
Please send without obligation information and prices on the following broken water equipment.

- ☐ Model 1212-1
- ☐ Model 1210
- ☐ Model 047 A
- ☐ Model 4 NAP
- ☐ Fognozl Applicators

Name _____

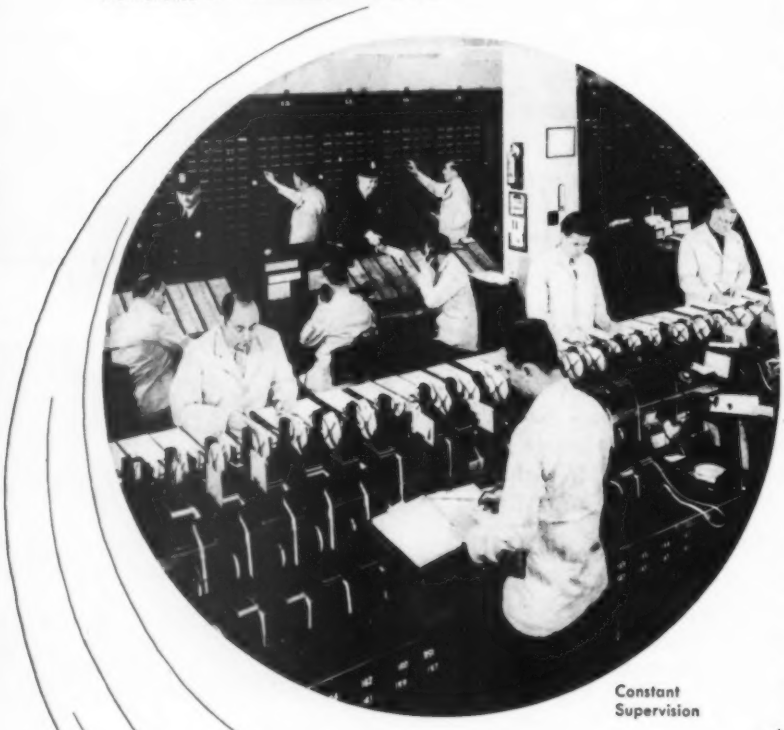
Address _____

City _____ State _____

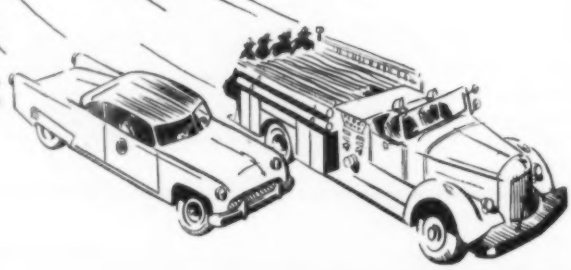


Complete Maintenance

WORKING 'ROUND THE CLOCK TO PROTECT LIFE AND PROPERTY



Constant Supervision



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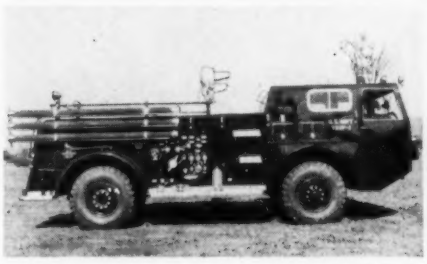

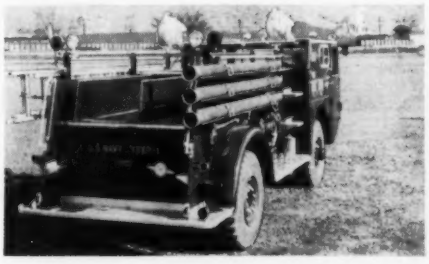

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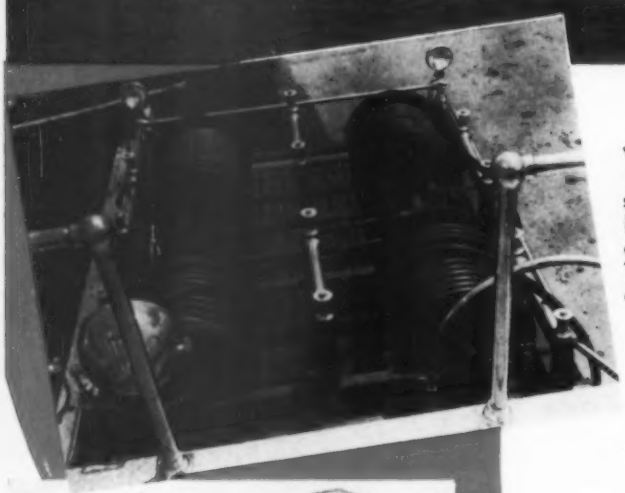

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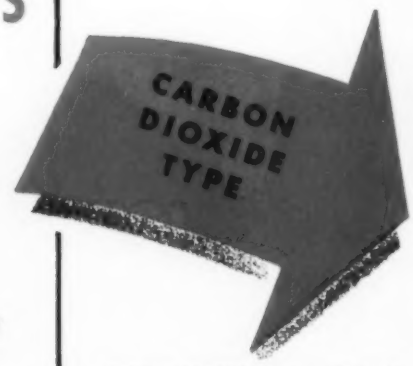

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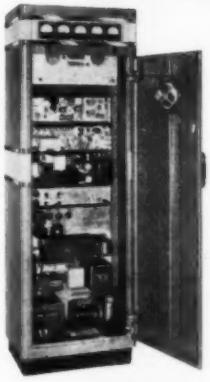

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The Detroit Fire Department's radio system includes three base stations in the center of the city—a 250-watt Central Office Unit, a 250-watt transmitter for standby and training purposes, and a 50-watt unit for standby purposes only. All are operated by remote control.

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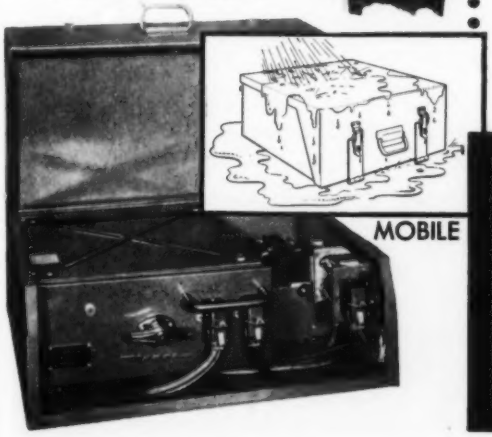

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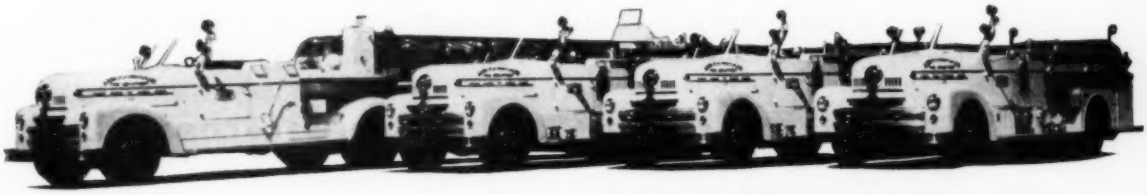

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JUNE, 1953 FIRE ENGINEERING VOL. 106, NO. 6

With the Editor

For the Budget Builders

In round numbers, there were more fires in 1952 than in the year previous. In dollar loss, property destruction in this country last year rose to a new peak of $815,134,000, or 11.6 per cent over 1951. But in large loss fires, those with individual losses of $250,000 or more, the number dropped in 1952, with a total of 275 which produced an aggregate loss of $182,243,000. That was a 9 per cent drop from 1951 when 302 large-loss fires occurred.

In a statistical analysis, the National Board of Fire Underwriters points out that 25 years ago the property loss in this nation, due to fire, approximated $473 million, so that dollar-wise in that time fire losses have increased over 70 per cent. In these same years the population has increased by 35 million people. And the Board offers this crumb of comfort: "If the over-all expansion of our national economy accompanying this rise in population, together with the change in the value of the dollar, particularly in the last ten years, are taken into account, the present fire loss level can be viewed in a different perspective and the picture is not as sombre as the stark figures would indicate. Advances in fire prevention, construction and safety measures, together with improved methods of fire fighting evidenced by the absence of major conflagrations, are in no small measure responsible for keeping the annual destruction by fire from exceeding its present levels."

We're glad to grab this comforting statistical crumb; to know that at least in certain directions we are making progress. It is encouraging to note, too, that fire losses for April, 1953, showed a decline of 19.3 per cent, according to the Board, from those of March of this year. But, lest we get too chesty over these slim statistical straws, it is just as well to remind our readers of a few other pertinent facts.

The first is that today the fire service in all its roots and branches is *doing more business* than it ever did in its history. Not only are there more demands being made upon it to prevent fires, but to put out those that occur (we're now well over the million-a-year total, including all types). Fire departments as a whole are responding to more fire alarms; they are running more miles; and personnel is spending more time operating at fires and other emergencies than ever before.

Large loss fires may be down, but the number of multiple alarms and of mutual aid calls is up (regardless of whether or not these calls were precautionary). But worst of all, however, is the tragic record of fire fatalities. Notwithstanding our vaunted efforts at fire prevention and safety, and our improved methods of fire fighting, over 12,000 lives were reported lost because of fire in this country and Canada last year.

Nor is this increasing "business" limited to the big cities. It is shared by villages and towns. Just as many large loss structural fires occurred in towns of less than 20,000 population (or in unincorporated areas) as in the larger cities of 20,000 or over.

Casualties too, it is disclosed, are in no wise limited to the big cities. The deadly slaughter, heaviest among the very young and very old, grinds on, month after month in rural as well as urban areas.

With it all, the public's bill for fire loss continues to mount. Side-by-side with the growing fire losses are the mounting *costs* to hold and contain those fire losses within their present limits. In short, this busier-than-ever fire service is costing the nation more, notwithstanding the flanking attacks and pruning expeditions on the nation's fire suppression budgets by well intentioned but misguided civic officials and others.

There are many things these statistics can't hope to tell us, as enlightening as they are. There is no accurate yardstick by which to judge the efficiency of today's fire control forces, measured against the property and life losses. One can only ask, *what would the destruction conceivably be were our fire forces less efficient, less alert, less conscientious!*

The whole problem of fire protection and prevention is changing with the hectic times. The great question before us is: are we of the fire service changing, revising and improving our thinking, our strategy, our techniques to meet this challenge? Only by keeping not merely abreast but *ahead* of this mutation can we ever hope to see these appalling yearly loss statistics drastically revised downward.

Fred Shepard

They Fight Fire With Film

By CLIFF DEKTAR

In Los Angeles, they are fighting fire with film.

Under its progressive chief, John Alderson, the Los Angeles Fire Department has pioneered the use of still and motion pictures in almost all phases of its work.

Use of the films has become standard procedure for the training of rookie firemen and the movies are also used extensively for refresher courses for veteran smoke eaters.

The films have also proved useful in public relations and fire prevention work.

"After all," points out Chief Alderson, "the best way to fight a fire is to keep it from starting. We feel that our motion picture program, particularly in training and in the schools, has proved invaluable."

To date, the L.A.F.D. has made and produced more than 17 films, varying from general fire prevention reels for use on television and in schools, to numerous training films ranging from fighting mountain brush fires to proper ventilation of a building by hook and ladder companies.

Today, the department makes all its own films under its Photography and Publicity Bureau, headed by Capt. Claude Conlin, Jr. The ambitious film program is an outgrowth of the department's still photography section started in the late 1920s.

Conlin, a hard-working young fireman who started out taking pictures for a hobby, took over direction of the Bureau in 1947, which marks the real beginning of the department's motion picture-making program. Conlin immediately began a study of the serious use of motion pictures in furthering the aims of the department.

"We had an unusual problem in Los Angeles," Captain Conlin explained. "We have 91 fire stations covering 453 square miles. It was impossible to talk to all our men at once. We figured that through the medium of film, we could get the same message to all the men and we could go a long way toward perfect standardization of our procedures and techniques."

Official Photograph L. A. F. D.

Los Angeles firemen not only shoot their own motion pictures, but they edit them, too. Here Captain Hans Anderson (left), mastermind of movie-making activities, edits film, while Captain Claude Conlin, Jr., Chief of Photography and Publicity Bureau of the L. A. F. D. looks on.

Making a survey of the available 16mm films on fire fighting and fire prevention, Conlin was disappointed to find that there were very few good ones. Most of these had been poorly made by people who knew little about firemen or fire fighting.

Conlin realized that if the L.A.F.D. was to get good films, the department must make them itself. Then the captain and his small staff decided that their films would be professionally perfect, even though most of the men were strict amateurs in the movie field.

"Rookie Training" was the first film made for the in-service training of firemen. It was a 30-minute silent production.

As the Bureau produced more films, they were in sound and of much better quality. As time went by, more and more interest by other departments needing good training and educational films developed. The L.A.F.D. began to receive numerous requests for prints of the pictures.

Fire Films Widely Circulated

Today, L.A.F.D.-produced motion pictures are used from Manila in the Philippine Islands to the oil fields of South America. In addition, numerous industrial plants, oil companies, Federal, State, and municipal agencies throughout the United States use the motion pictures for training their own firemen. One of the best endorsements for the excellent quality and value of the films comes from Cecil R. Gehr, chief of the Los Angeles County Fire Department, one of the largest fire fighting agencies west of Chicago.

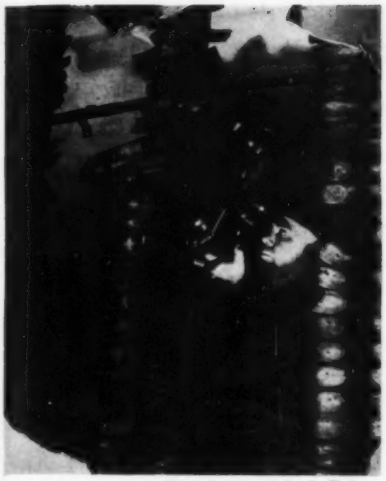
"We make extensive use of the Los Angeles Fire Department films," Gehr stated. "We find them excellent for training purposes. They are exceptionally well-produced motion pictures with a real value to firemen."

Many of the movies have been shown for public education and fire prevention on television stations throughout the country.

In Los Angeles, a special detail of Fire Prevention Bureau inspectors averages about a dozen showings of the

Official Photograph L. A. F. D.

Los Angeles Fire Department motion picture camera crew works on latest training film on breathing apparatus. Cameraman is on roof platform of Photo Unit station wagon used for movie making and shooting of still and motion pictures on major alarms. Man with earphones is Captain Hans Anderson.



Official Photograph L. A. F. D.

L. A. F. D. fireman-photographer uses speed graphic to take evidence pictures for arson squad use. L. A. F. D. Photo Bureau uses both still and movie cameras.

various films in the public schools. Many civic organizations also have free use of the movies.

Actual mastermind of the motion picture section of the Bureau is tall, affable, Capt. Hans Anderson. Captain Anderson acts as sound recorder, director, film editor, cameraman, projectionist, and even cleans up sometimes after the shooting is over.

Limited Funds no Handicap

"We don't have the best equipment in the world," says Captain Anderson, "but we improvise a lot and save the taxpayers money."

Working on a small budget has the advantage of taxing to the limit the skill and ingenuity of the camera crew and the firemen-producers. In some cases, items of equipment improvised by Captain Anderson have served the department's particular needs better than standard items. This was true of the special camera dolly which the firemen planned and built themselves.

Lacking means for a commercial sound editor, Anderson and Conlin put their heads together and combined a Craig Film Editor, a 16mm projector unit, and a radio. With the combination, they had a sound unit that does the job of a sound film recorder—a device which enables the editor to hear the sound track at the same time he sees the film.

The Bureau has adequate, but not fancy quarters in the main downtown L.A.F.D. Headquarters. A modern laboratory is available for still work, while other offices are used for planning and editing the films. A fireman-photographer is on duty 24 hours a day in the Bureau and answers all major alarms. He is also available to take pictures for arson investigations, fatalities, and for any other purpose.

In the Headquarters garage, a special photo truck is always ready to roll. The wagon has a roof platform, red lights, siren, and two-day radio and carries complete photo equipment in it.

In addition to the on-duty photographer, both Conlin and Anderson are called on major alarms. They have shot hundreds of feet of excellent footage on almost all types of fires from the big Warner Brothers Studio conflagration to raging brush fires in the Santa Monica Mountains. Much of this footage is used in films produced by the department.

Perhaps one of the most important features of the L.A.F.D.'s motion picture-making program is the relatively low cost. Most commercial producers of 16mm teaching films think in terms of five figures for a 10 minute production. They are astonished that the fire department can make a similar production for a fraction of this cost.

Part of the answer, of course, is that there are no high-priced salaries to pay, but the men really like to make films.

Official Photograph L. A. F. D.

L. A. F. D. fireman-photographer climbs ladder to get action pictures of a fire while brother fireman below uses small stream to put out furniture from burning room above.

"We originally started to make the films for our own department," Conlin stated, "but since there has been such a demand for the motion pictures, we have made them available to all organizations, fire and non-fire alike.

"We arranged for the laboratory which processes our films to sell them to other departments and organizations on a strictly cost-plus basis. Part of the small profit from the sales goes to defray our own laboratory and equipment costs. Since we already have the cameras and most of the equipment, all the taxpayer really pays for is the film."

Training films are usually narrated by the department's own drillmaster, while general distribution films for the most part have been done by the well-known radio and television commentator, John Milton Kennedy.

The motion picture section has three cameras and an Auricon Professional with single system sound recorder.

Four 4 x 5 speed graphic cameras are used by the still section. All still work is developed, printed, and processed, in the department's own laboratories.

Firemen Serve as Photographers

All photographers are firemen assigned to special duty with the Bureau and each man is personally trained by Anderson and Conlin. The new men serve as photographic apprentices until they are ready to go out on their own. There are five men assigned to the Bureau and they do all the photo work except for processing movie film.

Nearly 30,000 still negatives are in the Bureau's files. They are used for various purposes such as publicity, investigation, training, legal evidence, documentary, and fire prevention.

The Bureau also does several radio programs in fire prevention. Two tape recorders, one large and one small, are used for on-the-spot recordings. On major alarms, a fireman from the Bureau with a tape recorder goes along.

Captains Conlin and Anderson have outlined a few suggestions to other departments contemplating a film production program:

1. Be satisfied that fire prevention films can do a real service in protecting the lives and property of the community.
2. Educate the city and fire fighting officials to the possible value of films and get them sympathetic with such a program.
3. To lead and direct the film production, find a man who has the spirit and enthusiasm of an amateur film producer combined with the skill of a professional. Sometimes, such a person can be found

(*Continued on Page* 500)

Official Photograph L. A. F. D.

Death is not always pleasant. Here L. A. F. D. fireman-photographer takes movies for record and use in fire prevention films of body of victim burned in fire while smoking in bed.

Five Alarms Needed for Fire in Skyscraper Under Construction

Embers Carried by Wind Create Serious Exposure Problem

TWENTY-SIX years ago the nation's fire service awoke to the fire control problems posed by the skyscraper, and the need of readjusting building and fire prevention codes to provide greater fire safety during the construction period of such structures.

The costly fire in the 40-story Sherry-Netherlands Hotel, New York, on April 12, 1927, which called forth five-alarm assignments of the New York Fire Department, and was fought by 23 Engine, six Ladder companies and numerous other units, has served as an example to other fire departments down the years.

The $1 million fire of December 21, 1928, which ravaged the Riverside Church, then under construction, and which also was fought by a five-alarm assignment of New York's fire fighters, further spurred fire protection and prevention engineers to greater efforts to reduce the hazards inherent to building construction and repair.

With the advent of metal scaffolding, fire retardant tarpaulins and, in certain quarters, outlawing of the hazardous salamander, or its use near combustible materials, it was believed that the serious tall-building fire was a matter of the past. But what happened in Dallas on April 18, last, is a sharp reminder to the fire service that you can promulgate all the laws and ordinances but you cannot always enforce them; in short, you cannot legislate away human carelessness.

On Saturday, April 18, at 5:32 P.M., dispatchers at the Dallas, Texas, Department Alarm Bureau received a telephone alarm for a fire in the Republic National Bank Building, then under construction at the corner of Bryan and N. Ervay Streets. Box 19 was transmitted and was answered by Engines 1 and 10 Ladders 1 and 2; Salvage 1 and the Chief of the 7th Battalion.

The fire was in a building under construction, of steel frame and concrete, designed for 36 stories (447½ ft.) and said to be the tallest building in the Southwest. The framework of the $17 million structure was scheduled to be completed within a few days; 34 stories of steel were already in place. Concrete had been poured on all floors below the 19th and wooden forms were in place on the 18th, 19th, 20th and part of the 21st floors. One steel stairway at the west, or Bryan Street, side of the building was under construction and partially completed to the 12th floor. A series of ladders were installed near the east end of the building for use of workmen. An outside lift, or hoist, with tubular steel frame shaft, was located on the north or Bryan Street side, and extending to the 25th floor. This was about 14 ft. out from the building proper, and accessible to the various floors by wooden bridges or platforms.

The weather at the time was clear and cool with a northeasterly wind, velocity about 18 miles per hour at lower levels but considerably greater at higher altitudes of the building. Relative humidity was 56% and temperature was 50 deg. F. at 6:00 P.M.

Lone Watchman Told of Fire

The only person reported to be in the building premises when the fire was discovered was the watchman. All workmen had left by 4:30 P.M. The watchman was on the first floor when an unidentified man ran across Bryan Street and told him there was a fire in the building at about the 20th floor.

According to the watchman's statement, he told the man to call the fire department while he went to the upper floors to investigate. He said the fire apparatus arrived before he reached the fire level.

When the first company arrived, fire was observed across the ceiling of the 19th floor, burning from the west, or N. Ervay Street side, and extending back about 50 ft. on the Bryan Street side. Wooden forms for the reinforced concrete apparently were furnishing the fuel. There were approximately 200,000

Blazing brands and embers, carried on the brisk breeze, threatened wide area of downtown Dallas on April 18, when fire involved floors of the Republic Bank Building, under construction.

Photo courtesy Dallas F. D.

Part of the fire involving lumber on unfinished Republic Bank Building, Dallas, which caused up to $700,000 loss and periled wide downtown area.

board feet of lumber used in constructing these forms.

Men from the engine and ladder companies proceeded by the stairs and ladder-ways to the 18th floor. There, by lowering ropes, they pulled two 1½ in. lines to the 18th floor, from which they carried them by ladder to the 19th floor where they were placed in operation. These two lines were hauled up the outside of the building about midway, and on the Bryan Street side.

Within ten minutes the size-up indicated a serious situation existed, and at 5:42 P.M. a second alarm was ordered. This brought Engines 2, 4, 18, 3 and 8 and another Battalion Chief. By this time burning timbers and smaller particles of fire were falling from the building over a wide area, helped by a brisk northerly breeze. Many of these burning embers were carried for several blocks to the south, and awnings and roofs were catching fire along the south side of N. Ervay and both sides of Pacific Avenue.

Serious Exposure Threat

Four of the five engines responding on the second alarm were utilized in this exposure area, to prevent spread of these exposure fires. The other engine company laid a 2½ in. line to the northeast corner of the burning bank building, and assisted by members of the ladder companies, hoisted it by rope to the 18th floor and placed the line in operation.

According to Fire Chief C. N. Penn, who commanded the fire fighters in the struggle, there were two principal problems which he and his men faced. The first was the protection of the exposures, due to the flying embers, and the second was the necessity of using so much of the response on exposures that the manpower normally available on multiple alarm fires was not available for use on the main fire in the bank building, particularly in the early stages.

Chief Penn states that due to the exposed nature of the structure (wide open to the wind) and the stiff breeze, the fire spread very rapidly and burned with great intensity.

When the first companies arrived, the watchman was up in the building and the firemen made no effort to use the mechanical lift. Within a short time after their arrival, it was not considered safe to attempt to use it because of the spread of the fire above. Actually, one lift at the south side of the building fell from the 18th floor after a hot cable pulled in two and, loaded with burning lumber, penetrated through the first floor into the basement.

At 5:47 P.M. a third alarm was struck, to which two more engine companies (Engines 11 and 5) responded. One company was ordered to the exposure zone along Pacific Avenue, south of N. Ervay, to help control fires starting on the roofs of buildings in the 1600 block of Pacific, including the Palace Theatre and Dunton's Cafeteria. The other third alarm unit laid a 2½-in. line to the west end of the bank building where, assisted by fourth alarm companies, which were called only six minutes after the third alarm, the line was hauled by rope alongside a smoke chimney within the building to the 13th floor, whence it was carried by hand to the 19th floor and there placed in operation. Later this was reduced to a 1½-in. line and used with ⅝-in. nozzle.

At 5:50 P.M. two additional ladder trucks were called (Ladders 5-4). Both were aerials and were used to assist engine companies in working lines to the roofs along the 300 block of N. Ervay Street and on Pacific Avenue. At this stage the fire had spread and invoived the 18th, 19th and 20th floors. The number of falling objects and burning timbers had greatly increased and many small fires had started on lower floors, as well as in piles of lumber and material on the first floor wooden structure located around that level of the building. Even the uppermost of the four basement levels, open to the first floor level by means of a ramp, was involved. Two 2½-in. hose lines were laid to the ground level to control these lower fires.

The fourth alarm ,which was ordered at 5:53 P.M., brought three engine companies (Engines 9, 22 and 16). Another 2½-in. line was laid at the east end of the bank building and pulled by rope through a vertical opening inside the building alongside the workman's ladder-ways to the fire level. As may be expected, these operations entailed exhausting work, done at considerable risk.

A call for the response of all off-duty firemen was ordered at 6:06 P.M., at which time men were taking plenty of punishment. This was followed by a fifth alarm at 6:19 P.M., bringing three more engine companies (17, 27 and 15).

Radio Plays Important Part

These companies stretched no lines but were detailed to assist other companies at the bank building in their laborious hose operations. Pump cans were carried up into the building during these tasks, to extinguish small fires on various floors below the main blaze.

In an effort to overcome the handicap of handling communications between the upper part of the building and street level, and between forces scattered over the exposure area, portable radio was used. Department radio was employed to transmit the additional alarms, and

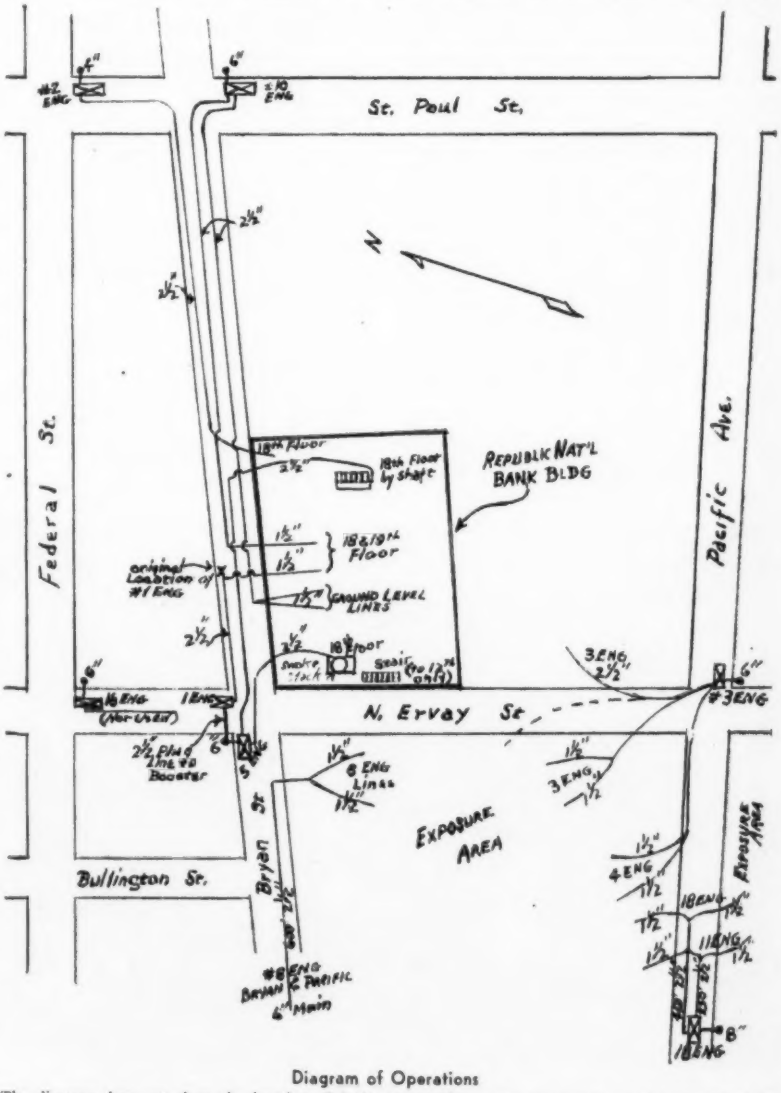


Diagram of Operations

The diagram does not show the location of ladder companies or the temporary wooden structures at ground level on the lot, including the passageway for pedestrians along the N. Ervay street side of the building. Engine No. 1 was moved from its original location on Bryan street because of the falling debris.

walkie-talkie were tried out within the building itself with varying success, due to unusual interference set up by the steel in the building.

The fire was tapped out at 7:31 P.M., but overhauling operations were conducted the balance of Saturday night and until Sunday afternoon, the last company leaving the scene at 4:40 P.M.

In combatting this fire, a total of 15 engines and four aerial ladder companies; one salvage company and two battalion chiefs responded. Another engine company, due to respond on the third alarm, was diverted by radio and dispatched to a fire on the roof of Neiman-Marcus Department Store which had started from falling embers.

Hose lines operated on the original fire included three 2½-in lines and four 1½-in. lines. In covering exposures, the companies used streams from one 2½-in. line and ten 1½-in. lines, as well as portable extinguishers.

The on-duty force at the box comprised 196 men; off-duty response was 116 men, including one Chief Dispatcher and one Dispatcher who returned to the Fire Alarm Office. The Chief, Assistant Chief, Fire Marshal, Master Mechanic, Chief Investigator and one Investigator also responded, being notified when the second alarm was received.

Investigators, probing into the cause of the fire, found that workmen had been in the habit of building fires in cans due to the cold weather. It is believed that all fires in these cans were not extinguished when workmen quit.

Loss to the building has been estimated at $500,000 by the fire department and assessed at $700,000 by construction engineers. Despite the fact that many horizontal beams were sagged and warped by the flames it is said no serious structural injury to vertical members occurred and it is expected the building will be completed according to schedule.

** Editor's note: Appreciation is extended to Fire Chief W. N. Penn for factual data, including diagram and photographs, upon which this special report is based.*

New London, Conn., fire at its height.

Eight Firemen Injured at New London Blaze

On March 22, 1953, a still alarm was sounded at 1:47 A.M. by an alert watchman on duty for the N. Y., N. H. & H. R.R., at New London, Conn. Seconds later, a box alarm (No. 329) was sounded by a schoolboy, which brought three engines and two ladder trucks to the scene of the fire. One of the ladder trucks was the new 85-ft. truck recently purchased by the City of New London.

About 1:50 a.m., Lt. Earl Rose, who was driving one of the new Ford cars equipped with private radio toward the fire, noticed that it was out of control and he immediately radioed Headquarters for more apparatus.

The second alarm was sounded, and Engines No. 6 and No. 7 rolled to the scene of the fire. Upon hearing the second alarm, Deputy Chief Frank Sullivan responded and radioed Headquarters at 2:15 A.M. for a general alarm. This brought Engine No. 3, the last available truck in the city, to the fire. Deputy Chief Sullivan again radioed Headquarters and had the Town of Waterford send some of their apparatus to cover New London. When the apparatus arrived in New London, the units were immediately called to a fire elsewhere.

About 4 hrs. 25 min. later, the fire, which was of undetermined origin and had started in a storage shed of the New London Coal Co., soon spreading to the adjoining building occupied by the National Biscuit Co., was extinguished.

Eight men were hurt fighting the fire. About 6,000 ft. of hose had been stretched at the fire.

Those injured were as follows: Lt. Earl Rose, Fred Villano, Richard Smith, Leo Rochett, George Shallcross, John Sheflott, John Cleary, and Thomas McCarry.

DONALD R. SWANSON.

Photo courtesy Dallas F. D.

View from the corner of Bryan and Ervay Streets, looking south on Ervay, showing burning timbers on street. Note wooden housing around floor of structure (left) and firemen on roof of structure.

"Conelrad" Goes into Effect

Washington has announced that the civil defense radio communications plan "Conelrad" (Control of Electromagnetic Radiation) will take effect shortly. This is the communication's headache with which the Defense Department, Federal Civil Defense Administration, and Federal Communications Commission—not to mention the fire chiefs of the nation—have struggled with for over a year.

Conelrad is expected to answer the problem of getting essential information concerning air raids to the public without facilitating enemy bombers to find their targets in this country.

As proposed, the procedure, when Conelrad is finally in effect, will be that, upon the approach of enemy planes, all radio and television stations will be alerted by means of radio impulses over certain key radio stations which are always monitored by the others. Television and F.M. stations will go off the air at once. All (A.M.) standard broadcast stations will "move along the dial" to either 640 or 1240, and those more powerful than 10 kilowatts will cut their power.

Under the new plans, civil defense public information and education sections will have the task of getting the instructions to the public who will be told to "tune in to either 640 or 1240 in the event an enemy attack is imminent."

Arson Investigation

5. Interrogating A Witness or Suspect

By BERNARD W. MULCAHY
Chief, Fire Prevention Bureau, Cleveland, Ohio

EVERY interrogation should be very thorough. Even though it seems to produce no results at first, the knowledge that he is under suspicion has a highly desirable psychological effect upon the suspect and he may do or say something which will give the investigator a new lead. Where a suspect objects to answering questions on the grounds of self incrimination, there is little the investigator can do. However, such an objection is good grounds for believing that the suspect has something to hide. This may be pointed out to the suspect, but it is imperative that the interviewer know the laws of libel and slander in effect in his state and should be extremely careful not to make charges before witnesses which he is not prepared to prove.

Ready for the torch.

In arranging an interview, the witness should be informed that he is to report at the designated place at a certain time, the investigator giving every appearance of assuming that such place and time is acceptable to the witness. An investigator must have a knowledge of all the facts relating to the fire and as much information as possible about the person who is to be interviewed before calling that person in for interrogation. He must know all the physical facts and have them substantiated by laboratory reports. The investigator, at the start, must be careful not to arouse the hostility or instill in the person a feeling of dislike. These investigations are usually carried on by men in civilian clothing, and an investigator should never wear loud or flashy clothing that will call attention to himself. He should be dressed in a conservative business suit, neatly pressed, with a clean white shirt buttoned at the neck and a conservative tie. He should wear shoes which do not contrast with his attire and these should be well polished. He should be cleanly shaven and his finger nails cleaned and well kept.

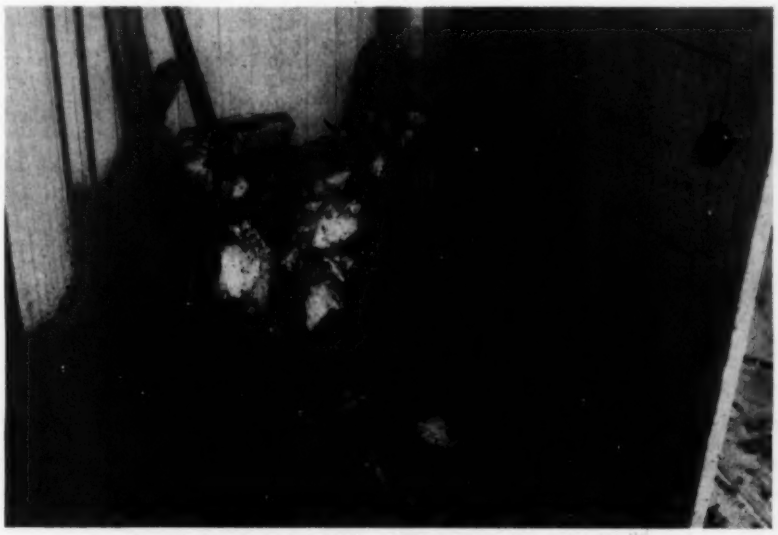
The room or place where the interrogation is conducted is extremely important. The best policy is to have a room set aside at fire headquarters for the purpose of interviewing witnesses. Where this is not feasible, it may be worked out with the Police Department or the Sheriff's office to have a room at the disposal of the fire investigator for this purpose. Such rooms must be plainly furnished with no pictures or other objects which will distract the attention of the person being interviewed. It is not good practice to conduct an interrogation in the home or office of the suspect or witness. This is particularly true when interviewing juveniles, as it is difficult to interview a child in the presence of his parents, who will insist on interjecting comments which in many cases influence the child in the story which he tells.

When the person to be interviewed is called in, he should be alone. It is not good practice to have friends or relatives present during an interrogation. There should be no interruptions, such as the ringing of the telephone or other persons entering and leaving the room. The investigator should always have a witness present during the interview; however good practice calls for not more than two investigators to be present except when a statement is being taken when, of course, a stenographer is necessary. As to the question of permitting or not permitting smoking during interviews, that will be up to the investigator to decide. This problem usually adjusts itself as the investigator acquires experience.

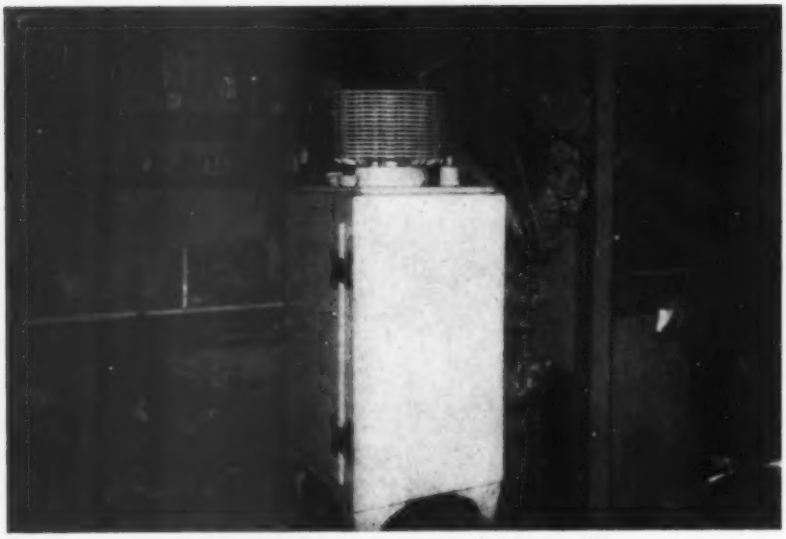
Before the interrogation starts, the investigator must in all cases formulate several key questions which he intends to put to the witness or suspect. With these and a good background of knowledge about the fire and the witness, he will impress the witness that he knows far more about him and about the fire than he actually does. As stated before, the investigator must begin the interview with an open mind and should not set out to prove any preconceived ideas which he may have about the fire.

It is well in all types of interrogations to permit the witness or suspect to tell his story in his own words. In this way the investigator will be able to exploit any discrepancies which may appear later in the course of the interview. While the witness is talking and telling his story, the investigator should permit him to tell it in his own way and should never put words into the witness' mouth. He should keep him talking and, when discrepancies are noted, remember them for the question period.

The investigator should carefully listen to the story of the witness, getting him to talk as freely as possible in a casual and matter-of-fact way without taking notes. In this atmosphere the witness is reassured and begins reacting in a cooperative manner. On the other hand, where notes are taken at the beginning of the interview, the witness may become more careful of what he has to say. As the interview proceeds, the investigator must guide the conversation into proper channels by questions. He must always remember that he is doing the interviewing and should not permit the witness or suspect to question him or he soon will find that he is the one being interviewed. When during the questioning period, misstatements, inaccuracies, untruths and other discrepancies are



Example of an unusual arrangement of material at a "set" fire.



Quick stop by fire department nipped this arson plot.

revealed in the witness's story, do not call his attention to this immediately but ask the questions again and again, rephrasing the same question and asking for more details.

All questions should be asked in a friendly manner. The investigator should be sympathetic with the witness or suspect, but never sentimental; friendly, but firm. It is never good practice to embarrass the witness. The investigator should be tactful and not let the witness know what the investigator knows. Always appear as though the investigator knows far more about the case than he is telling. In this way, the investigator is in full control of the interrogation and will impart to the witness or suspect that he is confident that he has all the information necessary and is only checking this information with the person being interviewed.

Questions should be asked in a manner that requires a detailed answer. The question should be phrased so as not to contain any information, but requiring the witness to supply the information in his answer. To do this, get the witness to talk and keep guiding his conversation by questions; keep him talking. Phrase the questions so that they will lead to the information you want. When discrepancies are noted, have the suspect or witness corroborate or disprove his own statements. This can be done by being very thorough as to details. Do not adopt the negative approach for, in doing so, we have already unconsciously suggested that it will be very easy for the witness to evade the question. By the negative approach is meant: do not phrase a question in such a manner that you suggest that the witness did or did not see certain events. A question should never be phrased as follows: "You did not see so and so on the night of . . ., did you?" The positive approach is preferred.

In interrogation, remember that the time element is always important. Have the witness fix the time of the occurrence either with reference to his watch, a radio program or something that can be corroborated as to having occurred at exactly that time. Have the time fixed by several witnesses and, where the investigator believes there is a discrepancy as to time, have the witness or suspect consider his statement again. The time of the alarm is definite and accurate, and it is important to know how much time elapsed between the time the first person saw smoke or fire and the time the alarm was received. In questioning a witness as to odors or a peculiar smell, have him describe these odors or smells as to whether they were bitey, aromatic, choking, etc. Question him as to the character of any noises he may have heard, whether it was crackling, rattling, detonating, or sizzling. Have him use similes, such as "it sounded like water striking hot fat," or whatever the case may be.

Misrepresentations and discrepancies should be noted, and a lying witness encouraged to talk and to tell his story in complete detail. He should then be questioned so that he has to tell many more lies to cover up the original false statements for as the old adage puts it, "Oh what a tangled web we weave, when first we practice to deceive." The witness or suspect will be caught in his own web of untruths and forced then to tell the truth. During the interrogation, the investigator should watch the suspect's eyes to see how he reacts to certain questions. Very often he will betray his nervousness at the mention of certain persons, places, or facts. When a suspect offers an alibi, this alibi must be immediately investigated and the person who is to verify the alibi brought in for questioning before the suspect has an opportunity to confer with him.

By questioning and thorough investigation before the interrogation, carefully prepared alibis may be broken. Where the investigator has taken the precaution of summoning the suspect and his witnesses at the same time and of ordering the examination so that a witness once examined cannot communicate with those who are to be heard later, he often gets contradictory statements. In this way, the most carefully concluded alibis may be proven false. When witnesses are telling the truth, all details given by different persons will fit in but there will be minor discrepancies as to time and occurences. However, where a person is attempting to establish an alibi, as a usual rule all the details given by different witnesses will be exactly the same. There will be no discrepancies as to time, and all the incidents attached will be too perfect. When an investigator encounters this, it is best to suspect that the witness has been carefully prepared beforehand; then he should cross-examine his witnesses, proceeding from incident to incident in the witnesses' story. Where they remember in great detail all that happened on the day of the fire, he should question them as to where they were on the day before the fire, talking them through the day hour by hour, and the day after the fire. In doing this, a witness who is not telling the truth will be unable to say exactly what happened on these other days; this can be pointed out to him and an explanation requested.

Very often a witness will mention significant facts and circumstances of which the investigator was not aware. Such information must be interpreted with what is already known and developed along the lines indicated. Rumors, whether substantiated by the evidence or not, may prove to have an important bearing on the case and can only be verified or disproved by checking on the information. During the investigation it is necessary to verify all information given by a witness or suspect.

Juvenile Suspects and Witnesses

Questioning children is a delicate problem and is handled differently in the various states throughout the country. This may also be said of interrogating a female witness, and an investigator must be certain as to the State laws regarding the questioning of juvenile witnesses and females. It is a good plan to interview children in the presence of their teachers or some representative of their school, such as, a principal or a pastor; or in cities having a Juvenile Department, children should be turned over to the juvenile authorities for interrogation. The questioning of children differs from the questioning of adult (male or female) witnesses. Children are much more suggestive than adults and have active imaginations and usually try to give the answer which they believe the investigator is seeking regardless of the truth of the situation, so the investigator must be very careful not to suggest the answer that he desires to a certain question.

A paternal attitude on the part of the investigator toward the child often is helpful. Where the investigator tends to use a child as a witness in a Court case, he must keep in mind that where a young child is wanted as a witness, the jury and the judge are often of the opinion that young children do not understand the nature of an oath and seldom understand the nature of a trial; therefore, the testimony of children is often of little value in establishing the facts of a case.

Where children are implicated in incendiary fires, it is often difficult to establish a case. In most states, no person under seven can be charged with the commission of a crime. Between seven and fourteen, the charge is usually delinquency and it is generally accepted that these children are not competent to know the nature and consequences of their act or to appreciate that it is wrong.

Therefore, children under the age of fourteen are usually handled by juvenile bureaus. In many states, it is a presumption that children between the ages of fourteen and seventeen are incapable of having a full knowledge of the gravity of their offense and, while they are subject to punishment, they should not be treated as adult criminals. All children should be tried before judges especially selected for their fitness in dealing with juveniles.

Investigators should be particularly careful about incarcerating a child waiting for a trial. The child should always be in a detention home rather than in the county jail. Moreover, in the sentencing of children, industrial schools and reform schools are to be preferred to penitentiaries; wherever possible, children should be placed on probation. No juvenile trials should be held publicly. All this, of course, has nothing to do with the investigator and is only inserted here to point out the care that must be taken in dealing with children.

Interrogating female suspects is also a delicate task, particularly when the investigator suspects that he is dealing with a sexual pyro. It is now generally recognized that sexual pyromaniacs are responsible for a large number of incendiary fires. However, because of the taboo nature of the offense and personal nature of the questions that must be asked, it is best where Police Women's Bureaus are established to turn female suspects over to them for questioning. Where no such bureau exists, the investigator must solve this problem for himself.

Confessions

The purpose of interrogating a suspect is to break him down and obtain an admission of guilt. However, no investigator should attempt to force a confession by coercion, threats or promises. Confessions made by a suspect held in custody are admissible as evidence only when they are of a voluntary nature. Admission of guilt freely made with no undue influence of hope or fear is usually received by juries as definite proof of guilt.

However, where the accused denies his confession or makes an attack on its authenticity by claiming it was involuntary, and was obtained by threats or promises, he creates a doubt in the mind of the jury. Therefore, the investigator must be prepared to prove by competent witnesses that the confession was not obtained by fear of harm or hope of benefit. The presumption is that confessions are voluntarily given unless the accused introduces evidence he made the admission under threats, or persuasion, or the promise of immunity.

No investigator should base his case on a confession alone. Without additional corroborating evidence, a confession is of little value. In support of a confession, he must be prepared to prove that the fire was of incendiary origin and that the surrounding circumstances were of a nature that the accused had a motive for starting the fire, that he had the opportunity, and all other pertinent facts which connect him with the crime. However, when the investigator is not able to establish a motive, such as in cases dealing with irresponsible persons, this need not deter him from presenting his other evidence. While motives are extremely important, they are not absolutely necessary to establish the guilt of the accused. The corroborating evidence in support of a confession should be so convincing as to be irreconcilable with any other reasonable hypothesis as to the guilt of the accused.

In taking confessions, the investigator need not warn the suspects of their rights under the law, the presumption being that they are aware of these rights. Treat the suspect fairly and, to avoid charges of abuse later in court, have inserted in the statement a clause to the effect that no threats or promises were used. It is also good practice to have a witness present who can testify to this fact. It is poor practice for the interrogator to work in relays on a suspect, as this may be interpreted as undue compulsion.

When taking a confession, be careful to take it down in minute detail. Be sure you question the suspect thoroughly as to the modus operandi; that is, exactly how he started the fire. When stimulants, such as flammable liquids or chemicals were used, ascertain where they were purchased. Also find out the motive, and question him closely as to the intent and responsibility. Be sure that all this is in the signed statement.

Immediately after obtaining the confession, take the suspect to the scene of the fire and have him reenact his crime. All of this evidence can be corroborated and will help to validate the confession in court. Moreover, the prosecutor will, in the event that the suspect afterward repudiates his confession, be able to point out to the jury that the accused had knowledge of a nature that only the person starting the fire could know.

Where the accused implicates accomplices, the investigator must furnish corroboration by other evidence that links these persons to the crime. In many states a defendant may not be convicted wholly on the testimony of an accomplice. There must be additional proof of his crime.

Recordings and records taken during an interview are admitted as evidence in many states. Where such records are made, it is important to have a statement signed by all persons present. Such statements must note the time, date and place of the interview. The names of all persons present and a statement that the suspect is aware the recording is being made of his confession. Recordings taken without the suspect's knowledge will not be admitted as evidence in court in most states. It is important, therefore, to warn the suspect that a record is being made of all that he has to say, and it is well that such warning should be on the record itself. It is poor practice, however, to rely on dictaphone or other recordings when taking a confession. All such records should be supplemented with a written signed confession.

The polygraph, or, as it is usually called, the lie detector, is a practical aid to the investigator in breaking down a suspect. The lie detector is a machine which registers the emotional reaction of the suspect on graph paper. It does this by recording the blood pressure, rate of breathing, perspiration and other physiological reactions. When a person deliberately lies, there is a psychological block which disturbs the metabolism of the body for a fraction of a second. This disturbance is registered on a chart and can be interpreted by a person trained in operating a polygraph machine.

Most large city police departments have lie detectors and a trained personnel to operate them. Where such machines are not available in the city or town where the investigator is stationed, it would be well for him to locate the nearest city having one and arrange for its use when he needs it. In many cases the mere suggestion to a suspect that they are to be subjected to a lie detector test will have a psychological effect and many times they will confess to the crime, thereby making such a test unnecessary.

The results of a polygraph test are not admitted as evidence in most states. However, such tests do have a psychological effect and when the suspect is confronted with the results of a lie detector test which shows conclusively that he is not telling the truth, he will

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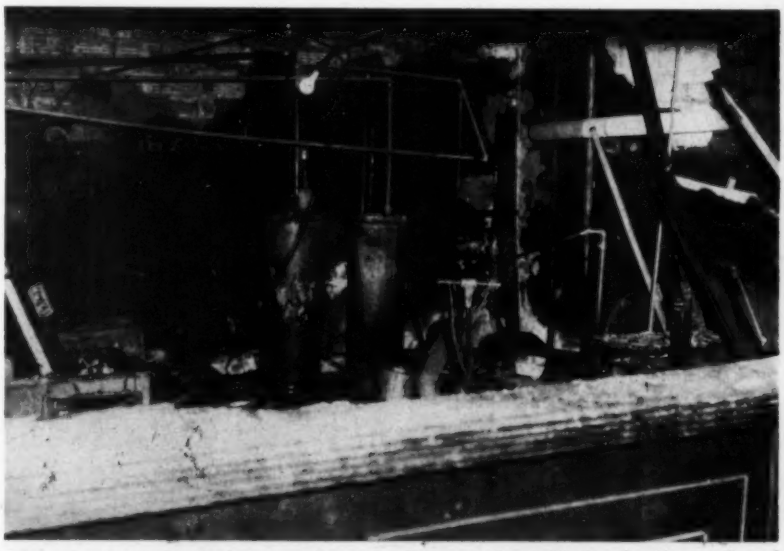


Intense burning in localized fire usually means the use of flammable liquids. Note pails and containers which had been filled with gasoline.

Practical Fire Service Rescue

Part 8 of a Series—Miscellaneous Equipment

By JOE MAHAFFEY*

The Salvage Cover. The salvage cover has several uses in rescue. The most important is to protect the victim and the resuscitator or other equipment in prolonged cases when they are subjected to rain or sun rays, to protect from the mud or sand of the field, and to protect victims in fire areas where water is used for extinguishment.

The salvage cover may be used as a tent or shade covering; with other equipment to form an impromptu stretcher or litter; with shoring to help prevent further cave-ins; under victims on wet or muddy streets; or to cover the dead. It may be used as a chute or as a precautionary, improvised jumping net when a child is being rescued from a tree or other high place; but it is not recommended as a life net.

The Small Tool Kit. On many occasions the rescue squad is called to respond on cases to assist persons who have had parts of their anatomy caught in light machinery or are victims of similar accidents. It might be a housewife with a hand in the wringer, or her husband with a finger caught in gears in his basement shop, a child caught in a fence or other entrapment, or a person with a ring which is too tight on his finger and is stopping circulation. It might be a worker with a limb caught in industrial machinery or trapped in a metal duct. The response may be to free a person who is locked in a room or to free several who are trapped in an elevator and forcible entry may be necessary. In any such cases, if no tools were available, damage must be done to the entrapping device or implement or further damage done to the victim, or both, to release the victim from his predicament. Rescue apparatus should be equipped with:

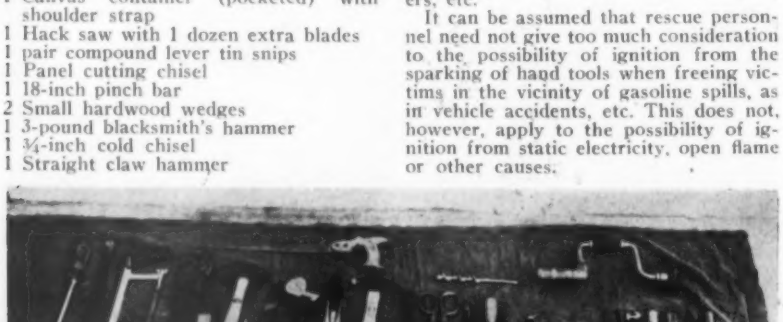
1 Canvas container (pocketed) with shoulder strap
1 Hack saw with 1 dozen extra blades
1 pair compound lever tin snips
1 Panel cutting chisel
1 18-inch pinch bar
2 Small hardwood wedges
1 3-pound blacksmith's hammer
1 ¾-inch cold chisel
1 Straight claw hammer
1 1¼-inch wood chisel
1 Brace (short sweep) with 1¼-inch wood bit
1 Keyhole saw
2 Pipe wrenches—18-inch and 10-inch
3 Crescent wrenches — 15-inch, 10-inch and 6-inch
1 Pair 10-inch Krauter pliers
1 Pair 6-inch pliers
3 Screw drivers—12-inch blade, heavy duty, 6-inch, 3-inch
2 Phillips screw drivers — large and medium
1 Set Allen wrenches
1 Pair diagonal cutters—7-inch, heavy duty
1 12-inch bastard mill file
1 10-inch three cornered file
1 Softwood pipe plug, round, tapered
1 Skeleton key
1 Pocket knife
1 Flashlight

Sparks from Hand Tools

Some agencies have been insistent in the past on the importance of using non-sparking hand tools (copper, beryllium, alloys, etc.) in the vicinity of petroleum vapors. Two major oil companies took issue with this theory and in field and laboratory tests attempted for two years to ignite petroleum vapors with the sparks from hand tools and even with friction sparks from ferrous metals on emery wheels.

They failed under all conditions and jointly make this statement, "We are of the opinion that the use of so-called 'non-sparking hand tools' is not justified in the petroleum industry." They qualified their statement, however, by saying that their findings appertained only to petroleum vapors, not to such materials as gun cotton, or finely divided combustible materials; to such liquids as carbon bisulfide; nor to especially prepared devices such as cigarette lighters, etc.

It can be assumed that rescue personnel need not give too much consideration to the possibility of ignition from the sparking of hand tools when freeing victims in the vicinity of gasoline spills, as in vehicle accidents, etc. This does not, however, apply to the possibility of ignition from static electricity, open flame or other causes.



The small tool kit.

The Smoke Ejector. There are often calls for response of the Fire Service when obnoxious or toxic gases have caused evacuation of dwellings, apartment houses or public assemblage that do not warrant response of an Engine Company. These responses can be handled adequately by the rescue squad if a smoke ejector and demand mask have been provided. If the gas has an explosive potential, then of course a pumper standby should be requested by rescue personnel.

The small tool kit shoulder sling.

To use the smoke ejector effectively, the fan must be placed in an opening venting to the outside at one end of the structure with the fan blowing to the outside where the gases may be diffused in the outside air. Windows and doors at the other end of the building must be opened to permit fresh air to flow into the structure as the gas is blown out. To attempt to blow fresh air into the structure is useless, as the force of the fan will blow only so far and then churn the gases within the building.

The smoke ejector is also useful, when the rescue squad is on a fire standby, to assist the hosemen to get into smoke filled areas, and to make rescues at fires when the fire squad has its hands full. At least two sections, fifty feet each, of rubber covered extension cord should be provided and one adapter from light socket to plug-in. When Engine Companies carry gasoline driven flood lights, then an adapter from motor to cord should also be provided.

Gas Detection. There are two gas detecting devices on the market that may have their importance to the rescue squad. One, with a color meter, indi-

*Los Angeles County Fire Department.

Power line rescues require ingenuity. An Omaha, Neb., tree trimmer, knocked unconscious when he came in contact with a 4000-volt power line, dangles by his safety belt, while firemen keep him away from the wires until power is shut off. He was subsequently lowered safely to the ground, and revived. Only injuries suffered were burns.

cates the presence of a concentration of carbon monoxide gas.

The other, with a needle meter, indicates an explosive range of flammable gases. In industrial areas, for the safety of both rescue and fire personnel, these instruments could well be provided to rescue apparatus.

Multiple-Story Rescue. Some types of equipment, as the jumping net, the life gun, the pompier ladder, extension ladders, etc., are often used in rescue but are generally allocated to apparatus manned by a larger crew rather than to apparatus designed for minor rescue.

It takes at least eight men of somewhere near equal height to properly handle the jumping net. Equipment of this type is usually allocated to the aerial ladder crew, the truck crew or the salvage crew.

In multiple-story areas, it might be advisable to supply the rescue apparatus with a portable electric saw and portable electric drill for the purpose of forcing entry into stalled elevators, etc. Much care must be practiced in using electrically powered tools around water. Many cases of electrocution have occurred from this cause.

The walkie-talkie, essential to well organized mountain rescue, has been used with fair results from the outside to the inside of a Class A building.

In Tide Water Areas, or in areas where pools, rivers, lakes or swamps occur, the reascue squad should be supplied with a torpedo float and grappling hook; additional rope may be essential. It is not essential that this equipment should be carried at all times but it is important that it should be available for immediate loading when the response is to such an emergency.

Flares. Flares of the electric lamp or railroad type should be carried on rescue apparatus for the nighttime protection of victims, personnel, apparatus and traffic.

Equipment

The following equipment is recommended for minor rescue apparatus:

Breathing apparatus with spare tanks—2
Resuscitator - inhalator - aspirator with spare tanks, micro heads, hose, and attachments—1
Oxygen humidifier and reducing valve with tank—1
First aid kit—1
Burn kit—1
Blanket case with five blankets—1
Canvas folding stretcher—1
Blake all-purpose stretcher—1
Reinforced canvas bag—1
Back rest—1
Canteen—1
Cutting torch with spare tanks and accessories—1
Asbestos blanket—1
Hand extinguisher—1
Pair clear lense goggles with safety glass—1
Life line—¾-inch manila, 100 feet—1
Hand line—½-inch manila, 100 feet—1
Block and tackle—⅝-manila, 2 two-sheave blocks—1
Snatch block—¾, single sheave—1
¾-inch double eyed rope straps, 8 feet—2
Pompier belt—1
Snap-on harness—1
Pair pole climbers—1
Lineman's belt with safety strap and safety rope—1
Pike pole—short handled with rope ring—1
Wire cutter, or mechanical axe—1
Pair rubber lineman's gloves, with leather gloves—1
Fire axe—1
Sledge hammer—12-pound—1
Pinch bar, 5 feet—1
Wrecking bar, 3 feet—1
Pair bolt cutters, 24-inch—1
Metal becket hook with wide strap—1
Hardwood wedges—large—2
Hydraulic jacks—12-ton—2
Mechanical jack—12-ton—1
Jack blocks—laminated hardwood—2
Shovel—L.H.R.P.—1
Shovel—S.H.R.P.—1
Mule bucket—1
Portable hand lamp—1
Handsaw—1
Blacksmith's hammer, 3-pound—1
Straight claw hammer—1
Salvage cover—1
Small tool kit—1
Pkg. flares—1
Smoke ejector—1

Equipment recommended to be kept in quarters for quick loading:
- Stokes stretcher—1
- Grappling hook—1
- Torpedo float—1
- Extra blankets and sterile sheets

For routine service:
- Tank connector, commercial to yoke —with gauge and plugs—1
- Rope template—1
- Spare 220 cubic ft. tanks of oxygen

For mountain rescue:
- Walkie Talkies, equipment and utensils as described in "Mountain Rescue."

Personal Protection

The fundamental thing that a fireman is taught is that his helmet, turnout coat and gloves are his greatest assets. The same holds true for rescue personnel. It is reasonable to assume that most responses, other than ordinary inhalator runs, will be fire-connected. Without personal protection, the rescue man can be rendered as impotent as the ordinary by-stander. Remember, before using your turnout coat to improvise a stretcher, splint or other first aid device, you also must get out safely in order to save the victim.

The first thought of the rescue man, when going on duty, should be to see that his helmet, turnout coat and gloves have been properly placed on the rescue apparatus. His second thought should be to check his flashlight. No person can stumble around in the dark, whether nightborne or smokeborne, and work safely or efficiently. Previous to making entry on any fire-connected response,

(*Continued on page* 500)

Sometimes it's a multiple-victim job. Members of Chicago Fire Department revive a family of four who were overcome by leaking illuminating gas.

FIRE CONTROL DEMONSTRATIONS FEATURE 4TH ANNUAL FIELD DAY

Approximately 1500 Attend the New Haven Fire Department's Annual Fire Fighting Demonstrations

By Roi B. Woolley

NEARLY 1,500 fire fighters and their guests gathered at the New Haven, Conn., Fire Department's Training Grounds, Friday evening, May 22, and all-day Saturday, the 23rd, for the Fourth Annual Fire Fighters' Field Day, carried out under the direction of Chief Paul P. Heinz. The event marked the conclusion of the week-long Connecticut State Fire School which registered several hundred students.

Each year, Fire Fighters' Field Day is the occasion for the introduction to the fire service of new products and new methods for suppressing fire. This year's affair was no exception. From Friday evening, when some 500 firemen crowded the spacious Auditorium to witness the stage demonstrations, to the concluding "conflagration" the following afternoon, events followed one another with the impact of a three-ring circus.

High spot of Friday's program was a dramatic demonstration of the way fires in volatile liquids start, and their method of extinguishment, by Joseph L. Risinger of the Socony-Vacuum Oil Company who has won wide acclaim for development of the method of controlling oil fires by sub-surface air agitation. Films showing the latest techniques in extinguishing large-scale oil fires by this newest method were shown.

Marking what may be an innovation in respiratory protective equipment, Arthur S. Brown of the Cycle-Flo Company of Milford, Conn., displayed for the first time a new type self-contained air and oxygen mask. Vying with him for setting a new precedent were representatives of the Industrial Safety Specialties Company, Perkasie, Pa.: Samuel Frank and Fire Chief Walter J. Flores, of Allentown, Pa., who exhibited new heat-resisting garments which were demonstrated next day under actual fire conditions and in which Chief Flores and Battalion Chief Andrew Flanagan of the New Haven Fire Department, walked several times through flames estimated at 2,000 deg. F. Chief Paul P. Heinz, host to the conference, also described a new fireman's plaster hook of novel design, made by the C. D. Pike & Fire Hook Manufacturing Corp., New Haven.

Saturday's program opened with a demonstration of low and high pressure fog on a solvent fire involving a 10,000-gallon tank. The first blaze was extinguished by members of the Williamsville Fire Company of Goodyear, Conn, using two 1-in. lines, with Hardie H. P. nozzles, in 50 seconds. The second fire was knocked out in 25 seconds, using Rockwood 1-in. nozzles, 400 PSI at the pumper. A third fire was extinguished in 30 seconds by New Haven firemen.

The same type of fire was then tackled by a crew of six men only four of whom used dry chemical. These operators, none of whom wore helmets or turnouts, were from the Ford Motor Co., Jones & Laughlin Steel Co. and Hyatt Roller Bearing Co., all large users of dry chemical. The initial fire was killed in less than 24 seconds, under the direction of Jerry Fleming of the Safety Frst Company of Elmsford, N. Y.

Last gasp of a roaring fire involving a 10,000-gallon tank, being extinguished by cab monitor nozzle on "Little Mo" crash and general utility truck, discharging water fog at New Haven demonstration. Unit circled the fire. Nozzle controls being shifted from inside the cab.

Several demonstrations of the efficacy of extinguishment of fires involving large tanks of flammable liquids by air agitation were staged by Mr. Risinger and his assistants. Fuels included kerosene, fuel oil, solvents and gasoline.

Between major extinguishing events in the morning, a number of newly developed tools for the fire fighter were shown, including a steel; bayonet-pointed low velocity nozzle designed by Rockwood for penetrating and extinguishing air crash, partition and other fires; an insulated wire cutter made by the Newman Company of Kansas City, Mo., that severed heavy guy wires quickly; a new Rockwood holder for large fog heads; a new compact, light weight, portable microphone called "Little Bull," which the New Haven Department uses in training and fire fighting operations; and a new plastic salvage cover introduced by Canton Containers, Canton, Ohio.

The latest types of adjustable fog nozzles were shown in operation, including Rockwood, Bete, Lum and others.

An unusual application of dry chemical was dramatized when a hot fire on the sixth floor of the Department's concrete and steel drill tower was extinguished in a matter of seconds utilizing the supply carried on the Depart-

Although not quite extinguishing a hot solvent fire in the top floor of the New Haven Fire Department's training tower, this 1,000 GPM Rockwood heavy duty nozzle knocked fire down where dry chemical completed task. Heavy wind proved a handicap.

Within seconds, dry chemical, supplied by the New Haven Fire Department chemical carrier unit through a hose and pipe riser 75 feet above ground, extinguished a hot fire involving the sixth floor of the tower. Light color of smoke indicates chemical has just been applied.

ment's "Chemical Carrier." This dry powder was discharged under normal pressures through a hard rubber hose line to a 1-in. pipe, rising 75 ft. thence to the fire area, where it was discharged in an effective cloud, notwithstanding the heavy wind that was blowing at the time. Nitrogen was the impellant. In still another fire, using solvents and fuel oil primed with gasoline, it required only 7 seconds and less than 50 lbs. of dry chemical to complete extinguishment.

While the tower was being prepared for the further tests, the Racing Tournament Team of the Smithtown Fire Department, L. I., thrilled the spectators with a display of fast ladder and hose work in which it very nearly tied the all-time records for these events. The unit was in charge of Chief Wilcox of that Department.

Probably the most dramatic tower fire of the day occurred when the top floor of the training tower was again lit off and efforts were made to extinguish the roaring fire by means of fog from a 1,000-gal. Rockwood head, mounted on a tall tower about 40 feet away from the drill tower and 30 feet above ground. Although the fog pattern blanketed the tower at times, the wind at gale force prevented complete extinguishment of the blaze, which was finally accomplished with dry chemical.

The latest in small but powerful crash fire trucks was shown operating on solvent and oil fires involving the 10,000-gallon tank. This unit, termed "Little Mo" was operated by its designer, "Army" Armstrong of Old Forge, N. Y., and one assistant from the interior of the cab. Two fires were extinguished using only the remote control nozzle mounted on top of the cab, the first by fog alone, the second using fog-foam. In these operations the unit circled the fires until they were pronounced out. The first fire required but 2 in. in depth of water out of the 200-gallon booster tank and took 1 min. 15 sec. The second took slightly longer. In both, the Rockwood FF Nozzle was used. Total water used for both fires was not over 100 gallons. The unit later extinguished spill fires, employing its booster hose and various l.p. and h.p. equipment.

In another exhibition, the much publicized McCulloch portable centrifugal fire pump was put through its paces. At peak discharge, it operated three 1½-in. hose lines with ⅜-in. tips, developing over 50 PSI on each line. The unit weighs 57 lbs. complete.

Members of the New Haven Fire Department showed how accumulations of dust can cause explosions, when ignited. A blast blew apart the walls of a test structure after pulverized coal dust was ignited by a small interior fire.

The same crew, working with engineers of the Safety First Company, knocked out running gasoline fires with dry chemical and, later, demonstrated the effectiveness of this same extinguishing agent on propane fires.

As an interesting interlude, members of the Connecticut Drill Masters unit staged an exhibition of life saving, removing "bodies" from various levels of the Training Tower. They were directed by Larry Eddie, Connecticut Superintendent of Training.

The vast crowd in attendance was held at a respectful distance as a fire involving two truck loads of magnesium shavings was fought by a crew of New Haven fire fighters. Following this spectacular display, the New Haven Fire Department paraded a large complement of its apparatus, including three latest pumpers, just received. Incidentally, several fire alarms which were answered by the department during the day, and which were responded to by some units drawn from the Training Ground, occasioned little delay in the program.

Another of the "building fires" for which the Training Ground has been famous, was staged in the 2½-story cement block building. The purpose was two-fold, (1) to give the new breathing equipment, previously described, a workout, and. (2) to demonstrate a new type scuttle which can be controlled from outside a burning building. Six firemen were sent into the smoke-charged building using the new Cycle-Flo masks, while other crews operated with conventional equipment. Three engines, a ladder truck and other equipment "responded" to this alarm. Users of the test masks reported satisfactory performance.

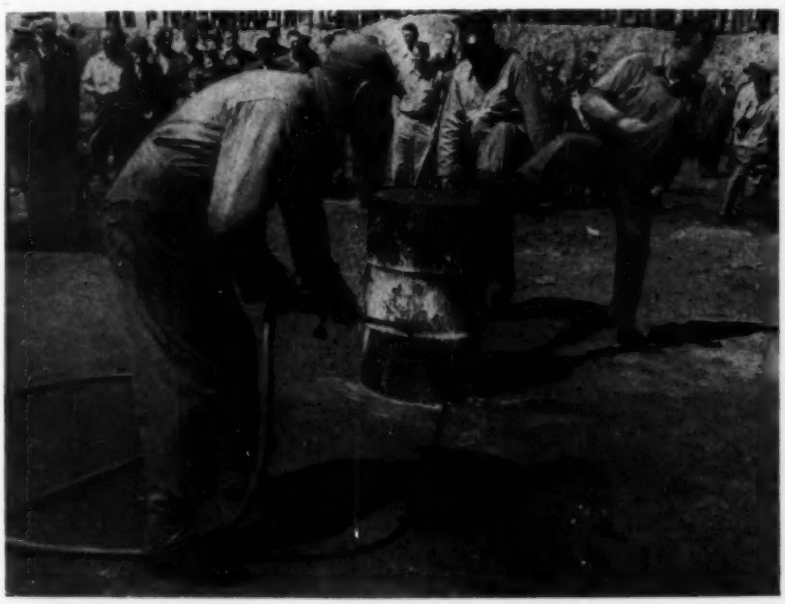
The grand finale of the session came when all pits and the 10,000 tank were ignited to simulate a conflagration. This year the effort was made to control and extinguish this "area" fire by means of heavy-duty fog nozzles, fixed on uprights placed around the grounds. Although the stiff wind made it impossible to efficiently use all of the fog heads, the others were successful in knocking down the blaze, where it was quickly finished off with hand lines equipped with smaller fog nozzles.

It was expected that this operation would require approximately 5,000 GPM of water and, in order to insure that delivery, two 1,000-foot lines of civil defense type light weight "irrigation" pipe were laid to bring water from the harbor, and from a distant street hydrant. Two pumpers were located at dockside, and two at the training ground outlets. One pumper operated from the street hydrant. Two other pumpers took water from other hydrant on the grounds, and just outside it.

This event also demonstrated the application of the telephone company's latest emergency field communication equipment, previously described in this Journal.

N.Y.F.D. Firemen Get 42-Hour Week

New York City's 11,000 firemen and 19,000 policemen were shifted in June from a 45-hour work week to a 42-hour week. The conversion involved the increasing of the fire force by 420 firemen. The step is part of the city's program for putting fire and police ultimately on a 40-hour week.



Former Navy Lieutenant Commander Mullen, demonstrating the Rockwood bayonet nozzle at the New Haven Training Ground. Sharp point pierces steel; fog or fog-foam is then discharged through low velocity head inside tank.

TELEVISION AND RADIO CALL OFF-SHIFT MEN TO PIER FIRE

Eighteen Alarms Sounded for $2,000,000 Waterfront Fire at Baltimore

AN 18-alarm fire which was fought by 78 per cent of Baltimore's fire force, together with Coast Guard and other fire fighters, caused damage of an estimated $2 million, and threatened the entire East Baltimore waterfront on Feb. 17, last. Fire department officials say they can recall no other fire in which as many as 18 alarms were sounded. They point out, however, that there have been several "general alarms" since the great Fire of 1904. A "general alarm" according to Pinkney W. Wilkinson, executive secretary of the Fire Board, calls out "all apparatus on wheels except certain equipment distributed throughout other sections of the city that would not be of any use in fighting a conflagration."

The February conflagration was fought by 354 firemen and 66 pieces of equipment, consisting of 45 engine companies, 15 ladder companies, one hose company, four fireboats and one water tower. In addition to regular equipment, 32 reserve pieces were mobilized by means of radio and television call to all off-duty fire fighters requesting that they report immediately. The reserve equipment stood by to handle other fires which might eventuate. The 18-alarms were sounded from four boxes located in what is known as the Canton district in multiples of six. Six alarms were first sounded from a box at Kenwood ave. and Boston street. The next six alarms went out from the box at Boston street and Luzerne avenue. The final series of six alarms was pulled at O'Donnell street and Linwood avenue.

Fire officials reported that during the height of the blaze the alarms came in so rapidly that the communications system was jammed, causing a delay in getting second and third line equipment to points where it would protect the rest of the city.

Every available piece of marine fire fighting equipment also was summoned, plus tug boats and Coast Guard craft manned by 200 Guardsmen.

The property involved in the roaring blaze included the buildings and equipment of the Chesapeake Marine Railway Company, and Baltimore Lumber Company storage yard and frame office building destroyed. Damaged were the warehouse of the Continental Can Company, a Pennsylvania Railroad freight-car ferry slip, a chemical company, a nearby dye works, and an electric firm. A number of taverns and other structures suffered from exposure to the heat but were saved by strenuous work of the fire fighters.

Cause Uncertain

The fire reportedly started with an explosion in or near a tank car on the property of the Marine Railway Company. It is said that shortly before the fire started, employees of the plant were using arc welding apparatus on an oil barge in drydock. The wind-swept fire ignited a fence, communicated to the 900 foot shed of the lumber company with storages of 1,000,000 board-feet of lumber, then moved on to the shipyard's three-story building and into the offices of the lumber company. Sparks flew 100 yards away to a one-story pier and shed of the Can Company and then to the Pennsylvania Railroad car-float pier. Flames shot across Boston street threatening all in their path.

Soon after the fire spread, firemen ordered residents of the 2700 and 2800 blocks of Boston street and 1100 block Kenwood avenue to leave their homes. At a fire signal, about 800 persons filed out of the Can Company building and another 100 left the J. S. Young Chemical Company plant. Another 30 or more fled the lumber yard.

The fireboat Cataract moved in close and extinguished flames on the railroad pier. Commercial tugs ducked in, braving the flames and tied onto barges moored at the slip and pulled them into the stream. With the slip opened, the Cataract and three other fireboats, Cascade, Torrent and Deluge, together with Coast Guard boats, lined up to pour water onto the Can Company's main building and other property.

Explosions of approximately 200 55-gallon drums of ethyl gasoline and other

Waterside operations at Baltimore's 18-alarm fire. Fireboats, Coast Guard craft and private tugs mass to contain and control $2 million fire that destroyed or damaged seven buildings and a pier. High wind and exploding drums spurred blaze.

Concentrated heavy streams to stop spread of Baltimore fire. Firemen mass land attack to prevent extension of roaring lumber yard and marine railway fire fought by 354 firemen and 66 pieces of equipment on February 17, 1953.

chemicals punctuated the blaze and spread the flames. When the corrugated roof of the huge lumber shed collapsed, it drove flames in every direction, and injured four firemen, three of them members of Engine 22, and one of Ladder 17.

Fire fighters made an initial stand against the blaze by using the roof and windows of the Can Company's plant, but as fire swept against the building, they were forced to retreat. Other firemen dragged hand lines into streets between burning structures, and exposures and, for a time, they too could not hold their positions. However, they took advantage of every break in the fire to cut off its extension, and after a 2½-hour struggle Michael H. Lotz, Chief Engineer of the Fire Department, reported the fire contained.

At the height of the blaze, fire forces of surrounding areas from as far away as Washington, D. C., were alerted and stood ready to move into Baltimore. Mobilization of the city's reserve equipment however, made this unnecessary.

It is believed by some that this was the first time that any city has used television with radio to call off-shift members into action.

Upper Montgomery County Fire Control Center

Montgomery County (Maryland) Department of Public Safety, Division of Fire Protection, in cooperation with the Division of Civil Defense and the volunteer fire departments of Damascus, Gaithersburg-Washington Grove, Hyattstown, Rockville and Upper Montgomery County, has established and now placed in operation a fire report and control center, where all fire and emergency calls for the entire up-county area are received and referred to the applicable fire departments.

The control center, which is located at the Lateral Roads Department Building, Washington Grove, Md., contains a sixty position PBX board with direct telephone lines to each of the five up-county fire departments, Montgomery County Police at Rockville, and the Silver Spring Fire Board, and a 250-watt radio transmitter operating on the county fire department frequency. The radio transmitter provides communication for the 12 pumpers, 3 ambulances, 1 squad and 1 chief's car in the upper-county fire departments and for 3 cars in the county fire marshal's office.

The control center is manned and operated twenty-four hours a day by county employees of the Division of Fire Protection. The dispatchers are: William Berry, a member of the Rockville Volunteer Fire Department; Leo Hull, a former member of the Kensington Fire Department, at present a resident of Laytonsville; John Stolz of Gaithersburg; and William Griffith of Beallsville and a member of the Upper Montgomery County Fire Department. They handle all fire and rescue calls transmitted to this center, operate the sirens at the fire stations, advise the fire departments of the location and type of call, and maintain radio communications with the fire apparatus while out of the fire stations.

In addition to handling fire and rescue calls, the fire alarm dispatchers are continually studying the geography of the territory and correcting, revising and bringing up to date a visible fire record of all streets and roads in the upper-county. They also prepare a daily report of all fires in the county for the county fire marshal's office and maintain a journal of the activities of the control center.

The dispatchers received training in the operation of the PBX board at the telephone company's school in Baltimore and were instructed in the operation of the radio transmitter by Lew Rice, County Radio Engineer, the Silver Spring Dispatchers and Montgomery County Police.

No Sharing of Police Frequency

Prior to the establishment of the control board, all up-county fire department radios were on the same frequency as the police department and all radio messages were handled by the police radio dispatcher in Rockville. This had many disadvantages, chief of which was that during a fire emergency the police radio dispatchers were overtaxed with radio messages; also that the up-and-down-county fire departments could not directly communicate with one another when both were operating on a large fire. Prior to the establishment of the center, the nearest fire company was not always called, as the telephone company would not assume the responsibility of routing fire calls to the nearest fire department. They would always call the fire company located on the exchange area from which the call originated.

From the Civil Defense angle, the upper-county fire board will provide a center of communication for the county fire departments in the event that enemy attack destroys the control center in Silver Spring. Also in case of an air raid, the fire sirens on the up-county fire stations, which are the only air raid warning devices in this area, can be operated simultaneously from this center.

The total cost of equipping this center including furniture, office equipment, radio equipment and transmitter tower was $6,500. This was provided by County Civil Defense funds.

With the new fire control center in operation, the up-county fire departments now have been able to initiate a mutual aid plan whereby more than one department will respond on building fires in the outlying and border-line areas and on alarms in specially hazardous occupancies, such as rest homes, schools, mills and factories.

The control center is now in full operation to all the fire departments except Damascus, which installation is being delayed because of difficulties in obtaining telephone trunk lines and radio equipment.

There has been no change in fire department numbers with the establishment of this control board except in Gaithersburg. The instructions for dialing are to call the fire department on a Rockville Phone, dial 2345; on a Poolesville phone, dial 3200; on a Damascus phone, dial 2181; and on a Gaithersburg and Hyattstown phone, ask for 512 or tell the operator it is to report a fire. These numbers are listed under Fire Alarm-Montgomery County in the blue section of the Maryland edition of the Washington area telephone directory.

Persons reporting a fire are cautioned to remember a few important facts—

1. Keep calm
2. Give clear information as to
   a. Nature of emergency
   b. Location of emergency
3. Identify yourself
4. Answer any questions of the dispatcher.

CHARLES H. HOWE
Fire Marshal, Rockville, Md.

Heavy Penalty for False Alarmer

Once in a blue moon comes along a magistrate who has no trucking with false alarmers. One of these is Magistrate John A. Masiello in Municipal Court, Paterson, N. J., who on April 17 last slapped heavy fines on one Frank Casper, 23, for sounding false alarms.

Casper was nabbed April 7 after three false alarms were sounded within 10 minutes. The series of malicious runs caused some consternation among fire and police officials. The latter were assigned to fixed posts in the vicinity of fire alarm signal stations but the culprit shifted his base to the South Paterson area. However, he was observed by Fire Chief Hobart Strathearn and Battalion Chief Les Davenport, who became suspicious of his behavior. Although he outdistanced the fire rig in his getaway, Police located him through his license number and he was apprehended.

In sentencing Casper to a fine of $500, a term of one year in the County Jail (suspended pending future actions) and suspension of his auto licence, the Magistrate declared he is determined to end the sounding of false alarms, and he promised jail terms for future offenders.

Fire control center, Upper Montgomery County, Md.

Novel Apparatus for Plant Brigade

At the Bridgeport-Lycoming plant in Stratford, Conn., three employes have come up with a new type fire apparatus.

In fact, the Company boasts there isn't a plant in that area that can compete with their new fire crew when it comes to speeding to the scene of a blaze and extinguishing it.

The new device was the result of a discussion on fire control in the former Chance Vought plant on South Main Street.

Lieut. Edward Cummings, of the plant protection force, who also is plant fire marshal, Jules Berger, general foreman of the jet section maintenance department, and Joseph Bennick, plant driver, decided that because of the broad expanse of the building, getting firefighting equipment to the scene of a fire was a problem.

Another difficulty arose as a result of narrow aisles separating machines on the plant floors which prevented maneuvering of equipment.

The result of their planning is a three men inspired "fireman's dream"—a motor-powered vehicle small enough to maneuver effectively, yet large enough to carry all necessary equipment and at the same time speedy enough to reach a fire within a few minutes.

Cummings, Berger and Bennick, in developing their idea, converted a flat-topped intra-plant material carrier, known as a "tote-master," into a fire apparatus that can be driven anywhere in the plant.

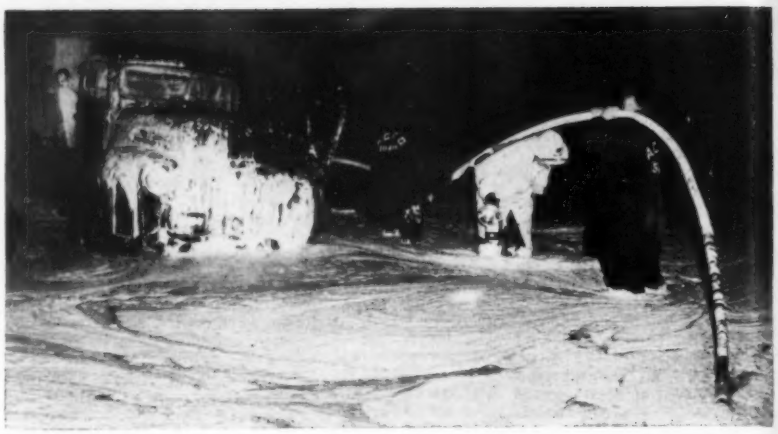
A welder in the plant shop erected a structure atop the vehicle so that it strongly resembles a fire engine. The truck is completely equipped with hand lanterns, extinguishers, combination fog and straight stream nozzles, first aid kit, salvage covers, helmets, turnout coats, boots, tools and gas masks.

"We can be at the fire in just a few seconds, and that goes for any part of the plant," Lieut. Cummings said.

Located in the fire station in Building 15, the firewagon can also haul a generator if necessary. Company officials claim no other plant in the area has apparatus with the speed and maneuverability of their fire truck.

Lieut. Cummings' crew of six firefighting specialists have completed a 10-week fire control course, and all members of the plant guard staff are available for duty in event of a fire emergency.

TOM MAGNER



Assistant Chief J. H. Clements, Arlington County Fire Department, wades under hose line at Arlington refinery blaze.

Difficult Fire Fighting

Arlington, Va., fire fighters, directed by Fire Chief C. E. Sheffell, skidded, slithered and slid through a knee-deep lake of oil, foam and water early March 11, last, fighting flames that destroyed 30,000 to 40,000 gallons of oil at the Worthington Oil Refiners, Inc., plant, Arlington.

The general alarm blaze started at 2:42 A.M. from an undetermined cause and, soon after, exploding drums and storage tanks hurled flames high in the air. Thick smoke boiled out of flaming storage tanks and containers. However, Chief Sheffell said only one or two of the larger tanks exploded.

A 30-foot bluff overhangs the refinery and firemen were able to train their water and foam lines down onto the flames to protect exposed storages and permit other companies eventually to fight the fire from other vantage points. Considerable foam was used in this operation, both to kill the fire in the containers, and in two trucks which were ignited by the blaze.

The refinery, which reclaims 10,000 gallons of used oil daily in a round-the-clock operation, was not itself seriously damaged. This was its second fire, one in 1948 causing $50,000 loss.

Chief Sheffell used 16 pieces of equipment from Arlington, Ballston, Cherrydale, Clarendon, Jefferson, Falls Church and Fairlington. Alexandria dispatched two pumpers to stand by in Arlington fire stations.

The chief said his fire fighters had a rough time keeping their footing in the oily "lake" but fortunately no one was seriously injured. Traffic on the George Washington Memorial Parkway was suspended until workmen could sand the road.

Plant fire fighters at the Bridgeport-Lycoming Division of AVCO, Stratford, Conn., test home-made fire apparatus. In the photo, left to right, are Joseph Bennick, Walter Kuzia, Ralph Urbano and Lieutenant Edward Cummings.

Coals to Newcastle

Volunteer fire fighters of Harveysburgh, Ohio, had to call upon neighboring Waynesville vamps to help extinguish a fire—in their own fire house.

According to the press, "The hose in the Harveysburg pumper was blazing and they (the local firemen) couldn't do anything except hope the Waynesville firemen would hurry." The latter raced the 6 miles to Harveysburg and had the blaze under control half an hour.

Philadelphia Seeks New Rating

A move was started in May to enlist business and civic support in a drive for lower fire insurance rates on more than 500,000 Philadelphia properties, and a higher safety rating for the city.

In 1949 the National Board of Fire Underwriters down-graded the city from Class 2 to Class 4, largely because of inadequacies in the Fire Bureau. In recent years the city has spent more than $10,500,000 to put into effect 58 of 60 recommendations made four years ago by insurance experts, and it now deserves a higher rating, according to City Managing Director, Robert K. Sawyer.

News of the Manufacturers

Mask Gets Practical Demonstration

When members of the McMinnville, Tenn., volunteer fire department saw a recent demonstration of an oxygen-generating mask at the Murfreesboro fire service school, they invited the manufacturer's representative to visit one of their own meetings. James C. Sheehan, of the Atlanta office of Mine Safety Appliances Company, obliged.

James C. Sheehan descends ladder from attic of the dairy mart after extinguishing a smoky, smouldering fire at McMinnville, Tenn.

He brought along the self-contained unit, known as the "Chemox" mask, to demonstrate its ability to provide oxygen for the wearer in contaminated or oxygen-deficient atmospheres.

Mr. Sheehan got more of an opportunity than he had bargained for. A fire alarm came in just after he had begun the demonstration. The McMinnville firemen called to him to "jump aboard, come along for the ride."

Arrived on the scene, a roadside dairy mart, Sheehan, with his mask still strapped on, proved to be the only man equipped to pass safely into the smoke-filled building. Armed with a spotlight and a hose line, he mounted a ladder through the smoke to the attic, and had the fire extinguished in a couple of minutes. Fire Chief D. L. Davies and his men said that without the new mask, the building would probably have been partially destroyed and the firemen would have had a two-hour job on their hands.

Nife Batteries for Fire Alarm Systems

"Nife" storage batteries, widely used abroad in fire alarm systems and other applications since 1910, are now in production at the Nife, Inc., plant at Copiague, L. I., N. Y.

The name "Nife" is derived from the chemical symbols of Nickel (Ni) and Iron (Fe). These two metals along with their compounds were originally the active materials of the alkaline battery. Later cadmium was added to the iron as the active material in the negative plates.

The electrolyte is primarily an alkaline solution containing potassium hydroxide dissolved in distilled water; a number of other chemical substances play a supplementary role.

According to the manufacturers, Nife nickel cadmium batteries present the following advantages: 1. long life; 2. high efficiency; 3. steel construction throughout; 4. great resistance against shocks and vibration; 5. no sulphating or similar disintegrating processes; 6. not damaged by the lowest temperature; 7. no standing losses—makes equalizing ing charges unnecessary; 8. low internal resistance; 9. low capacity drop at high discharge rates; 10. no generating of corrosive gases; 11. no gassing during discharge; 12. can be charged by extremely low currents; 13. immune to occasional excessive discharges and short circuits; 14. not sensitive to overcharging.

The company has just issued Bulletin No. 8 descriptive of Nife batteries. A copy of this bulletin is available upon request.

A New Angle on a Hook

Some call them pike poles, others plaster hooks, and still others just plain "hooks," but whatever the terminology, they constitute one of the most essential of the fire fighter's tools.

Over the years, many firemen have wondered why it was that no radical change was made in the design and construction of this important essential. The great majority of fire departments today use the same type of hook that was common back in the pre-horse era of fire fighting.

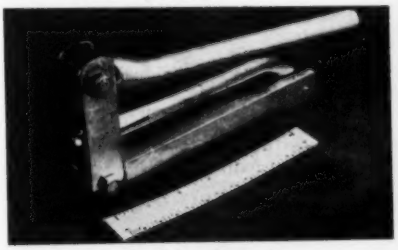
The improved EK Hook.

One of the few improvements in this tool was announced a few years back in this Journal. But unfortunately, until now, that device never was marketed, although a number of fire departments secured it and still use it.

This hook, bearing still further refinements, is now available, from the C. D. Pike & Fire Hook Mfg. Corp., 207 Orange Street, New Haven, Conn. Its features are: a sharp cutting edge; sharp point for penetration and prying; a serrated tooth-like edge for cutting metal, and ripping. The head is forged chrome nickel molybdenum alloy steel, heat treated with ground and sharpened edge. The handle is straight grained ash with special hand grip. They are furnished in lengths of 3 feet to 10 feet.

Fireman Invents New Compact Hose Clamp

Patents have been issued to Captain Leo M. Goodman, Sr., Mayview, Pa., covering a "Deadline" fire hose clamp, so compact that it may be carried in a fireman's coat pocket.

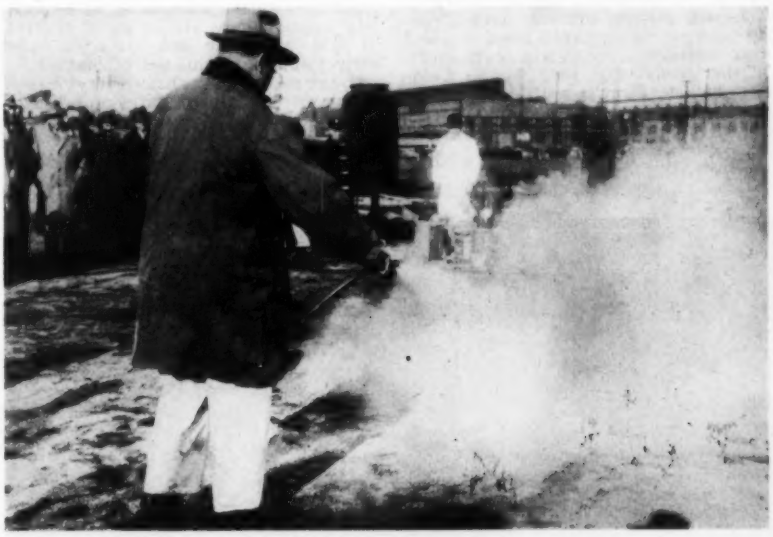


"Deadline" fire hose clamp.

It is claimed for the new device that, despite its lightness, it is sturdy and can be manipulated with ease. Its inventor who plans to market the product, is president of the Fire Chiefs Association of Allegheny County, Pa., and a practical fire fighter. He has been an instructor for the Pennsylvania State Fire School since its inception in 1938.

Alfco Introduces New Line of Extinguishers

A new, complete line of portable carbon dioxide fire extinguishers distinguished by a new, simplified, fast-acting



New Magnesium Fire Extinguisher.

Newest way of putting out fire in magnesium is to cover it completely with new Met-L-X powder, expelled by Ansul extinguisher. Here J. T. Shoemaker of Ansul Chemical Company completely covers burning magnesium with the powder, smothering the flames. Correct extinguishment requires firemen to remain on hand for several minutes to add additional powder in case fire breaks through the initial coat.

valve is announced by American-La France-Foamite Corporation, Elmira, N. Y.

Five models, Nos. 2½, 5, 10, 15 and 20 (the model numbers denoting the weight capacity), are available. Each has the new valve which provides greater simplicity; it dissembles for servicing without special tools. Also claimed for the products are fast action: the squeeze lever directly over the valve stem gives quick discharge and easier leverage. Added protection is afforded by the side mounted safety disk. The locking pin cannot fall out while the extinguisher is being moved. Hose connections are equipped with the Alfco Anti-Statik Discharge Device. All bear the Underwriters Laboratories and Factory Mutual Laboratory labels.

Wetting Agent in Tubes

"Firewater," the chemical penetrant manufactured by the Firewater Company, 1 First St., Los Altos, Calif., is now available in individual tubes for more convenient use. It is named "Firewater 5" and is premeasured for use in 5-gallon capacity fire extinguishing equipment. The new tubes are about the size of small toothpaste containers.

Wetting Agent Supplied in Tubes

It is recommended for all types of back-pack pumps, pressure tanks, stirrup pumps, water tanks, buckets and other emergency fire fighting equipment.

Other products of the Firewater Company include Firewater DC 300, a dust penetrant; Firewater Adjuvant W" for cotton defoliating, and Firewater Spindle Wetter, for use with cotton picking machines.

Homelite Appoints Midwest Manager

Nelson Thompson, vice president of Homelite Corporation, Port Chester, N. Y., has announced the appointment of E. W. McClellan as Midwest Re-

E. W. McClellan

gional Manager. Mr. McClellan, former manager of Homelite's Buffalo District Office, opened a new headquarters at 120½ South Grove Ave., Elgin, Ill. on May 1. He will be in charge of sales and service activities of Homelite's District Offices in Detroit, Cleveland, Cincinnati, Indianapolis, Melrose Park, Kansas City and St. Paul, as well as Homelite Branch Offices in Toledo, Grand Rapids, Milwaukee, St. Louis and Omaha.

Steam Cleaner for Heavy Duty Cleaning

Fire apparatus, even more than units of trucking fleets, can get dirty in the performance of their assigned tasks. All of which complicates the job of the fire fighter.

The situation is being alleviated somewhat by the application of what is known as the Auto-Steam heavy-duty vapor steam cleaner. This device, though originally designed for cleaning in automotive, farm, aviation industrial and other fields, may be a boon to the fire service as well.

This vapor steam cleaner provides 100 pounds of steam pressure in 90 seconds, has a completely visible panel control, is fully automatic and has a balanced swivel gun with gun-control shut off.

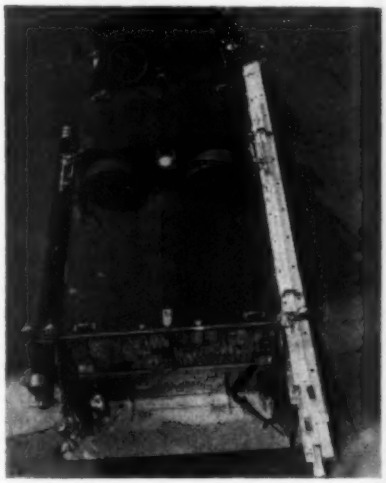
Equipped with a heavy-duty ½-h.p. motor, the machine requires no pre-mixing compound, and has a sootless atomizing burner with flashtype boiler.

The manufacturer, Aeroil Products Co., Inc., 5 Wesley St., S. Hackensack, N. J., claims for Auto-Steam that it is scientifically balanced for maximum cleaning performance at medium pressures and that it produces a penetrating, saturated solution, hot enough to clean perfectly without ever burning, and wet enough to carry off residue.

Aeroil steam cleaner at work on fire truck.

Aluminum Construction Features Greensboro Pumper

An unusual feature of the new Oren Model 1600/1000 pumper recently delivered to the City of Greensboro, N. C., is the increased use of aluminum in the vehicle. The hose body and front compartment covers are made of this light weight metal. Another feature is the 4½-inch gated suction intake with soft suction attached at the operator's panel, and twin electric hose reels.



Greensboro pumper, showing removable hose compartment covers in place.

This method of covering the hose section is said to be unique. The covers, of course, are quickly detachable.

The Oren Roanoke Corp. of Roanoke, Va., which produced this 1000 GPM unit, elected the following officers at its recent stockholders meeting: Francis S. Brigham, President and General Manager; Dorothy L. Brigham, Vice President and Treasurer; W. K. Dyer, Vice President and Secretary. The above, together wtih John W. Barnes, constitute the Board of Directors.

New Oxygen Mask

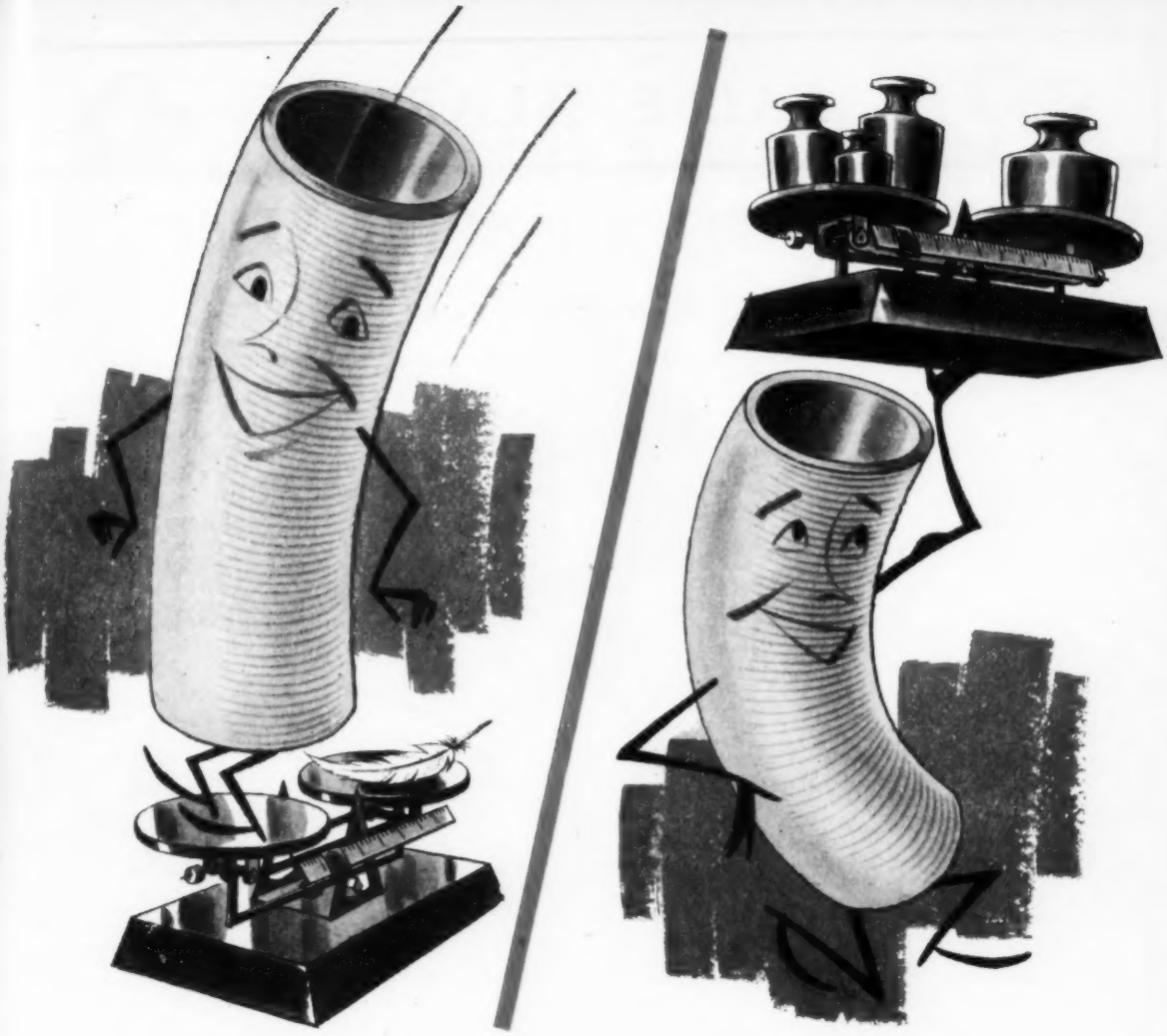
The Cycle-Flo Company of Milford, Conn., has announced a new, self-contained oxygen mask providing breathing protection against all breathing hazards, bearing the name "Pocketaire."

Pocketaire is new in principle and design. Weighing only 4½ lbs., it is small enough to fit into a coat pocket. The oxygen supply is divided into two cylinders, so that one five-minute cylinder is always available for the user's escape when the "working" cylinder is exhausted.

The equipment may be worn with a shoulder holster or may be clamped directly to the turnout coat of the fireman. With the latter arrangement, the breathing equipment is put on with the coat making it instantly ready for any emergency which may be encountered.

The standard model provides a "hard work" life of ten minutes. A special

(*Continued on page* 520)



Lightweight...but strong!

Eureka's Vulcan Brand has a jacket of cords that are lighter, stronger than those in standard hose—with *no loss* in burst-resistance.

Vulcan is so flexible you can easily tie it in a knot. It is easier to carry or drag, cuts writhing and whipsawing to a minimum.

As in other famous brands of Eureka Fire Hose, Vulcan's Balanced Weave and Controlled Curing eliminate excessive warping and stretching. Exclusive Formula "X" provides mildew-proofing. "Bomb-Tested" Linings insure long, dependable life.

EUREKA

"For greater protection to life and property"

EUREKA FIRE HOSE

Since 1875, Specialists in Manufacturing Circular-Woven Cotton Rubber-Lined Fire Hose

195 Hudson Street • New York 13, N. Y.

Division of United States Rubber Company

FALSE ALARMS

The Roving Reporter

Billy aged nine, was told by his teacher to write a story about his origin. He promptly went home and questioned his mother: "Mom, where did Grandma come from?"

"The stork brought her, dear."

"Well then where did you come from?" pursued Billy.

"The stork brought me too."

"Did he bring me too?"

"You too, son."

With a little frown, Billy wrote the lead paragraph for his article: "There have been no natural births in our family for three generations."

A wedding ring is like a tourniquet —it stops circulation.

Truck Mechanic: "With a rig like this, my advice is to keep moving."

Trucker: "Why?"

Truck Mechanic: "If you ever stop, the cops will think it's an accident."

A teacher in Brooklyn said: "Joey, give me a sentence using the word 'bewitches'." After deep thought, Joey replied: "Youse go on ahead—I'll bewitches in a minute."

A first grade teacher had just read to her pupils some nursery rhymes. To find out whether they had been paying attention, she asked them questions concerning the rhymes.

"Why did the cow jump over the moon?" she inquired.

Little Johnny spoke up: "Probably because the milkmaid had cold fingers."

The pedestrian had been standing on the corner for hours, while the cars and trucks streamed by continuously. He couldn't get up enough nerve to risk a crossing, but finally spied a man on the other side of the street and called to him:

"Hullo, how in the world did you get over there?"

The other man cupped his hands to his mouth and shouted back:

"I was born over here."

An elderly couple from a rural community were fascinated by the window display along the main street. For a long time they stood watching a demonstrator place a bunch of laundry in a washing machine with the resultant swirling and splashing of water.

"Well" said the old lady at last, "if that's television, they can have it."

Little Louise: "Mother dear, what does dehydrate mean?"

Mother: "It means getting all the water out of anything. Why?"

Little Louise: "Well, my puppy just dehydrated in the living room."

"May I remind you, gentlemen—since you last bought us equipment, the department has become somewhat outmoded!"

Easy

One of the greatest marksmen of the FBI was passing through a small town and everywhere he saw evidences of the most amazing shooting. On trees, on walls and on fences there were numberless bull's-eyes with the bullet hole in the absolute center. He asked to meet the person responsible for this remarkable feat. The man turned out to be the village idiot.

"This is the most wonderful marksmanship I have ever seen," said the FBI man. "How in the world do you do it?"

"Easy as pie," replied the village idiot. "I shoot first and draw the circle afterward."

It's sad for a girl to reach the age
Where men consider her charmless,
But it's worse for a man to attain the age
Where the girls consider him harmless.

"They tell me, Jones, that you pushed a wheelbarrow down the street last night right after our company party. Is that right?" asked the General Manager.

"Yes, sir. I was pretty well spifflicated," admitted the salesman.

"Well, how do you think I feel over the possible loss of prestige that your actions may have brought upon our business?" asked the Gen. Mgr.

"Gee, boss, I never thought to ask you. You rode in the wheelbarrow."

There are two well known finishes for automobiles and trucks—lacquer and liquor.

Neighbor Boy: "Mr. Rinchman, my daddy sent me over to borrow your corkscrew."

Mr. Rinchman: "Okay, you run along home, sonny, I'll look it up and bring it right over."

No Amateurs

A widower, who was about to be married for the third time, and whose bride to be had also been at the altar before, wrote at the bottom of the wedding invitations: "Don't fail to come. This is no amateur performance."

Another Dog Story

A dog lover took his pride and joy to a movie. On seeing the dog in a seat beside his master, an usher approached him to tell him that animals were not allowed in the theater. When he got close, he noticed that the dog was disturbing no one and was watching the picture intently. The usher was so amazed that he let the dog remain. After the show, the usher approached the master and said, "I was surprised that your dog seemed to enjoy the picture so much."

"So was I," replied the proud owner, "because he didn't seem to care at all for the book!"

With all those feminine falsies, a guy never knows what he's up against.

ONLY $270 BUYS A PACKAGE OF FULLY AUTOMATIC FIRE PROTECTION

Anyone who can measure volume . . . and can cut pipe . . . can install this ready-made fully automatic fire extinguishing system that requires no power source.

It includes Kidde's split-second rate-of-temperature-rise heat detector (the fastest detection known to the fire-fighting industry), Kidde's powerful Multijet nozzle and a 50-pound cylinder of fire-killing carbon dioxide. You even get a monometer tester. Pipe and fittings are optional.

Six Kidde Standard Paks are available for volumes from 800 up to 6,000 cubic feet.

All components of Kidde Standard Paks are the same as those used in Kidde custom-designed installations. The difference is that Kidde has pre-engineered the Paks for small hazards. And the savings on volume distribution are passed on to you!

You just can't beat Kidde Standard Paks for inexpensive night-and-day protection against normal flammable liquid hazards.

Remember, fire won't wait till you're ready. Better write today for full information.

Kidde

Walter Kidde & Company, Inc.
633 Main St., Belleville 9, N. J.
Walter Kidde & Company of Canada, Ltd., Montreal, P. Q.

CAIRNS

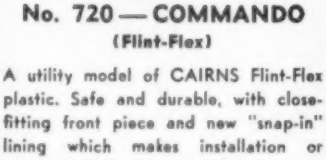
DROP-BRIM HELMETS

No. 550 — SEAMLESS
(Leather)

A drop-brim style with seamless crown. Applied ribs have steel reinforcement. A tough, long-wearing leather helmet at lower cost.

No. 700 — STREAMLINER
(Aluminum)

A feather-weight helmet with specially formed crown giving solid support to the front piece. The drop brim gives extra protection for eyes, ears and back of neck.



No. 720 — COMMANDO
(Flint-Flex)

A utility model of CAIRNS Flint-Flex plastic. Safe and durable, with close-fitting front piece and new "snap-in" lining which makes installation or removal of the complete lining assembly a matter of seconds.

Write for Catalog 341

CAIRNS & BROTHER
INCORPORATED
(ALLWOOD), CLIFTON, N. J.

Outfitters to Firemen Since 1836

The ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

SMOKING IN BED

THE discussion in the Round Table is a continuation of that which appeared in the April and May issues on smoking in bed.

The generous response from our readers makes it necessary to carry the discussion over to this issue and to next month's issue as well.

Readers are invited to send in their comments on this subject which is described in the box herewith. Address replies to Round Table Editor, FIRE ENGINEERING, 24 West 40th Street, New York 18, N. Y.

Discussion of the Question

Donald S. Charles, Chief, Charlotte, N. C.: In the years 1951 and 1952 we had twenty-nine fires which were attributed to smoking in bed. During this period two lives were lost as a result of this practice.

The State Hotel Safety Law is the only regulation applicable in cases of this nature. This law states that "Any person who in any fashion or manner negligently or carelessly sets fire to any bedding, furniture, draperies, household furnishings or other equipment or appurtenances in or to any hotel or other building of like occupancy shall be guilty of a misdemeanor and shall be subject to a fine of not less than $50.00 nor more than $500.00 or to imprisonment or to both fine and imprisonment in the discretion of the court."

It is difficult to pinpoint definite effect, but it is believed this law has had a positive influence for good.

A comprehensive and sustained educational program would be the most practical approach to the problem.

William H. Rosche, Chief, Canton, Ohio: We have had numerous fires, as well as some deaths caused by people smoking in bed. However, we have no deaths attributed to this cause during the past two years.

Transients in hotels seems to be our worst offenders and there is nothing in our City Ordinance or State Laws to govern or curtail this foolish practice.

In 1947 a very diligent effort was made by the Ohio Fire Chiefs Association, to have legislation enacted which would have provided a very stiff penalty for anyone causing a fire in a hotel, through the medium of smoking in bed.

This proposed legislation met with a lot of opposition from the Hotel Owners as well as from numerous legislators and was defeated. As a matter of fact, our local hotels are even reluctant to place a "Destruction of Property" charge against people setting fires in hotel beds.

In my opinion, people will always find a way to beat a "No Smoking in Bed Law." Very few will ever admit that they were smoking in bed. Even if you find them unattired, they will insist that they got out of bed to smoke and either a spark from the match or cigarette set fire to the bed.

I believe that television; motion pictures; radio scripts and favorable newspaper items would do more good in educating the public relative to this matter, than any law which might be enacted.

Hobart Strathearn, Chief, Paterson, N. J.: During the past two years, according to the records of the Paterson Fire Department, a total of seven lives were lost and one hundred thirty-five fires caused by careless smokers, smoking in bed.

At the present time, there is no City Ordinance nor State Law designed to reduce this hazard.

With a City Ordinance or a State Law enacted, compelling that a "Mandatory Fine" be paid by a person or persons, "found guilty of causing a fire, while smoking in bed," there is no doubt in my mind, that it would be helpful in checking this serious fire and life hazard.

In my experience, I have had occasions where the Department has been summoned to the same location and the same apartment, within a few weeks time, for a fire caused in this careless manner, each time, and by the same person.

HERE IS THE QUESTION

1. **Have any lives been lost, or fires started, in your city in recent years as a result of smoking in bed? If so, how many cases are on record, particularly during the past two years.**
2. **Have you any city ordinance or state law designed to reduce this hazard?**
3. **If so, what are the provisions of such ordinance or law?**
4. **Has it proven effective in reducing the number of fires caused by smoking in bed?**
5. **What other measures do you feel would be helpful in checking this hazard?**

Responding to an alarm in the early hours of the morning, last November, upon arrival we found an automobile afire, caused by the occupant smoking in the car, and while busily engaged extinguishing this fire, our attention was called to a fire in an apartment on the second floor of the house across the street from where the burning car was parked. We found a blazing bed in the room occupied by the same man, who had been the occupant of the burning car, a half hour previous.

Lecturing does no good in these cases, whereas a "Mandatory Fine" of $50.00 or $100.00 would most decidedly bring better results. This has been proven in Paterson on the violators of pulling false alarms, since the City Magistrates in the past five years have been placing a fine of $100.00 on any person found guilty of such an offense, and it has brought good results.

When you "hit the pocketbook" of the guilty individual, it will make him think and realize the dangers of such carelessness.

T. C. Turner, Chief, Columbus, Ga.: We have on record twenty-three cases of smoking in bed in 1951; in 1952 we had 32 cases listed. We had one death resulting from carelessness with cigarettes in 1952, but none was recorded from this cause in 1951.

Regulation XIX of the Georgia Safety Fire Regulations provides that "Any person smoking or attempting to light or smoke a cigarette, cigar, pipe or tobacco in any form for which lighters, matches or flammable liquids are used, sets fire to any bedding, furniture, curtains, drapes, house or household furnishings in any hotel shall be subject to the penalties as provided for by the laws of this State."

To the best of my knowledge, I believe this regulation has proven effective.

I feel that education of the public is important to check this hazard.

Frank Buckman, Chief, Binghamton, N. Y.: In 1951 we had forty-two fires caused by cigarettes and in 1952 had fifty-seven such fires. No lives were lost in 1951 from this cause, but two died in 1952.

We have no state law or city ordinance designed to reduce this hazard.

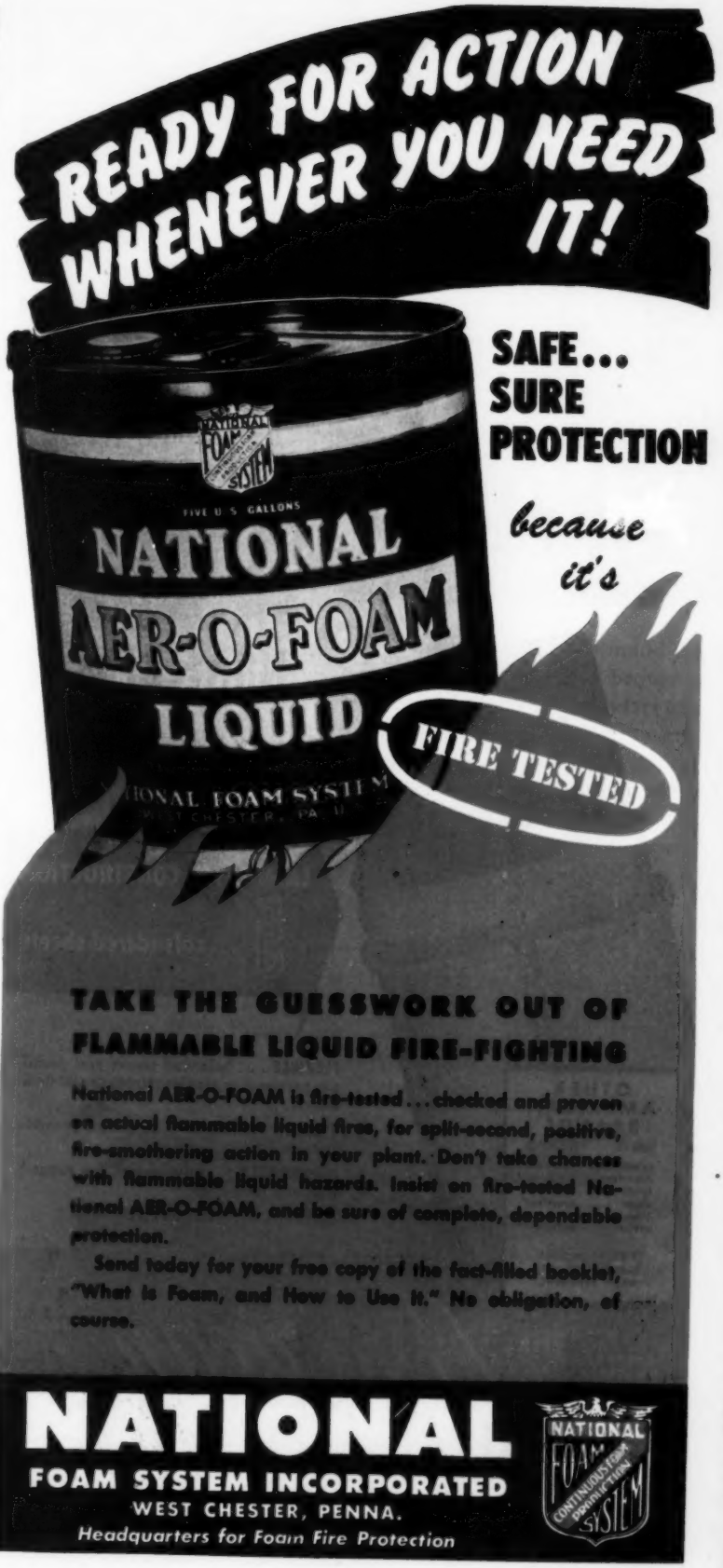
I believe an ordinance making it a misdemeanor and liable for prosecution for anyone starting a fire with a cigarette, and an educational program would help to reduce this hazard.

Frank L. Veasley, Chief, Cleveland Heights, Ohio: We have no actual cases where lives have been lost due to smoking in bed. We do find however, that careless smoking habits exercised by people while napping, resting or sitting on upholstered davenports and chairs, have contributed to several fires in our city.

We have prepared a "No Smoking Ordinance" and presented it to our legal department for submission to the city council.

Provisions in this ordinance deal largely with the control of this potential fire hazard only in buildings of hotel, rooming house and other similar occupancy where the life hazard predominates.

We believe it will prove effective inasmuch as it will regulate and control the smoking habits of the occupants, and also make them personally responsible for any damage incurred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as a result of their carelessness.

Frankly, I feel we are only scratching the surface in dealing with this problem. We know we can achieve a certain amount of success by controlling and regulating people's actions in public buildings, and in occupancies where permits and licenses are required, such as hotels, rooming houses, etc. But, such places are in a minority when you consider the overwhelming majority of private homes where most of these fires occur.

Fire prevention education is probably the answer, and must be approached from a civic angle. Church groups, P.T.A. associations, civic clubs, etc., are all vulnerable when it comes to presenting lectures and fire prevention demonstrations. In this fashion we are indirectly reaching into the homes of these people by teaching and warning them of the danger from fire.

V. L. Crusinberry, Chief, Sioux Falls, S. D.: During the past two years, there has been fifty-five fires where the cause has been traced directly to cigarettes. Of this number, ten were "smoking in bed."

The State of South Dakota has a law for hotels and overnight places of lodging which prohibits smoking in bed.

Violation of this law is punishable by fine, imprisonment, and restitution for damage incurred. Several arrests and convictions have been made, and I am inclined to believe it has served to reduce the number of this type of fires appreciably, and especially in second and third rate hotels. I believe it is important that all convictions and arrests should be well publicized to keep the public fully aware of the existing law.

Whether it would be possible to invade a man's private home with regulations and laws covering the careless use and discarding of cigarettes, is a big question mark! I am inclined to believe, however, that requirements could be drawn up to regulate the proper type of receptacles in public buildings. Many fires, no doubt, have been caused by the depositing of cigarettes on the edge of shallow ash trays. Too many of us today as individual citizens refuse to take our individual responsibility in fire safety practices. A constant public relations program, I believe, is one of the best measures that can be taken by fire departments in this matter.

James G. Murray, Deputy Chief, Fire Prevention Office, Rochester, N. Y.: Our records for the past two years show that only one person died from burns resulting from smoking in bed.

Approximately two per cent of our building fires start from smoking in bed. Some known cases of injury have resulted.

No known ordinance prohibits the smoking in bed in occupancies other than convalescent homes in this locality.

Our Chamber of Commerce in its monthly bulletins is emphasizing different fire hazards and perhaps in this way the public will gradually become more aware of this hazard. With over twenty per cent of our fires in buildings being started by careless smokers I believe more concentrated effort should be exerted to bring it before the public.

Lucian B. Smith, Chief, Billings, Mont.: In 1951 we had eleven fires caused by smoking in bed and in 1952, had fourteen from this cause.

We have an emergency ordinance passed on February 5, 1952, by the City Council which provides penalties for carelessly causing fires in hotels or public rooming houses. The provisions of this ordinance are as follows:

Section 1. Whoever, by reason of careless, willful, or wanton conduct in smoking, or in the use of lighters or matches for smoking, shall set fire to any bedding, carpet, curtains, drapes, furniture household equipment, or other goods or chattels or to any building shall be fined not less than ten dollars ($10.00) nor more than one hundred dollars ($100.00). This Ordinance shall be applicable in places of public accommodation as designated in Section 3 hereof.

Section 2. The term "careless conduct in smoking" shall include, as used herein, any of the following acts, commission or omission: Permitting a spark or sparks from a lighted cigar, cigarette, or pipe to fall upon or into anything inflammable; placing any lighted smoking material on or about or in close proximity to any flammable article or articles; falling asleep with lighted smoking material of any kind at hand; throwing lighted smoking material out of a window or into an elevator pit or elsewhere than in a proper receptacle therefore; dropping a lighted cigarette or cigar or part thereof into a mail chute in any building; failure to extinguish the fire of a match or any kind of lighter device after use of the same; failure to de-

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stroy the lighted part of a cigar or cigarette when disposing of it; failure to destroy the burning smidgen or smidgens of tobacco from a pipe when cleaning or unloading a pipe.

Section 3. A plainly printed notice of the provisions of this Ordinance shall be posted in a conspicuous place in every sleeping room of every hotel, rooming house, tourist court, tourist home, or other place renting rooms for the accommodation of the public. Such notice shall be posted by the owner, proprietor, lessee, or managing agent of such establishment.

I believe this ordinance has helped locally for reason of the publicity received on the conviction and fining of eight persons during 1952 and the fact that a copy of this ordinance is posted in each room of every hotel, motel and rooming house. In nearly every case, the occupant had been drinking.

I believe public education and the use of ash trays with built-in safety features would also be helpful to check this hazard.

Ben J. Zahn, Chief, Ann Arbor, Mich.: Fortunately we have not had anyone lose his life from smoking in bed, not only in the last two years, but I do not remember hearing of anyone in the last fourteen years or even longer.

We do not have a city ordinance or law which would tend to lessen this hazard, but we do, however, have a State law that says that anyone who shall be found guilty of carelessly or recklessly setting fire to bedding or any other furnishings in a hotel or rooming house shall be found guilty of a misdemeanor punishable by a fine or jail sentence, and in the past several years, I have had six or seven persons arrested and convicted under this law. In fact, I had one man arrested for the second time, on which occasion the judge sentenced him to 30 days in jail, mostly for the purpose of sobering him up.

I believe that when the public reads about these cases in the newspapers, it has a tendency to decrease this habit.

We also always warn every group we speak to about this very dangerous practice. We have large numbers of school children visit the fire department and we usually find it a good time to have them instruct their parents regarding this bad practice.

T. G. Lennon, Chief, Saskatoon, Sask.: We have not had any lives lost from fires caused by smoking in bed, but two persons were badly burned.

Persons smoking in bed, especially in hotels and apartments, can be prosecuted and all damages to furniture, beds, linen, etc., must be made good by the offender, plus an automatic fine of $25.00 and costs.

It definitely has reduced the number of hotel room fires.

We have posted printed cards in all rooms, advising of the hazard and what each occupant is liable for under the act.

I believe if all hotels ruled that a twenty-five dollar or fifty dollar deposit must be made on all rooms to insure careful usage, this would reduce losses greatly. Deposit would be returned if all is in order when checking out.

George Sanders, Chief, Hot Springs, Ark.: According to our records three people have been burned to death because of smoking in bed.

We have a city ordinance against

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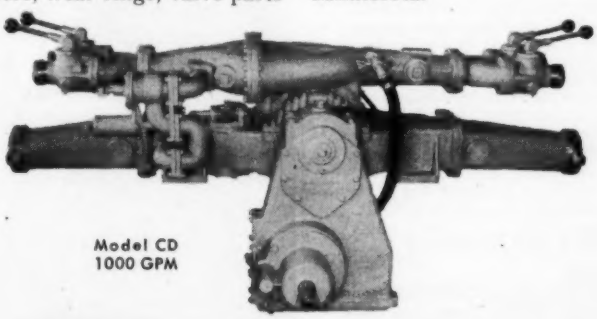

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smoking in bed which carries a penalty of $25.00. Apparently it has not helped too much.

I feel that a higher fine with strict enforcement would help check this hazard.

Francis X. Mannion, Chief, Kokomo, Ind.: No lives have been lost recently as a direct result of smoking in bed, although some have been fortunate in escaping with severe injuries. In 1950, a man was fatally burned in this city. He fell asleep in an upholstered chair and the cigarette he was smoking ignited the chair. Our records show that smoking in bed caused five fires in 1951 and five in 1952.

Neither the City of Kokomo, nor the State of Indiana has a law against smoking in bed.

For the City of Kokomo, the most immediate need is for an ordinance prohibiting smoking in public buildings such as hotels, where smoking in bed is a fire hazard. It is doubtful that the courts would support further laws to regulate smoking in bed in private homes, but publicity to educate the public of these dangers would be most helpful.

Frank Everett, Chief, Rochester, Minn.: No lives have been lost, but we have had seven fires caused by smoking in bed.

We don't have a city ordinance covering this hazard, but we do have a state law which provides the following:

"(616.253) Section 1—Setting fire to hotel belongings. Subdivision 1—Penalty—Any person in any hotel, rooming house, lodging house or other place of public abode who, by smoking or attempting to light or to smoke cigarettes, cigars, pipes or tobacco, in any manner in which lighters or matches are employed, shall in a careless or negligent manner set fire to any bedding, furniture, curtains, drapes, house or any household fittings, or any part of any building of the class hereinbefore set forth, so as to endanger life or property in any way, or to any extent, shall be punished by a fine of not more than $100.00 or by imprisonment not to exceed 90 days.

"Section 2, Subdivision 42—Notice Required—In each sleeping room of all hotels, rooming houses, lodging houses and other places of public abode, a plainly printed notice shall be kept posted in a conspicuous place advising tenants of the provisions of this Act."

This law has proven effective in reducing the number of such fires where rooms are posted.

I believe the law should include another subdivision making all owners of the above places of public abode post all their rooms. As it is now, just the better class hotels and apartment houses have rooms posted.

Michael H. Lotz, Chief Engineer, Baltimore, Md.: In 1950 we had eight deaths caused by smoking in bed; in 1951, there were six deaths; in 1952, seven, and so far this year there have been two.

In 1951 we had 207 fires and in 1952, 144 fires from this cause.

We do not have a city ordinance or state law designed to reduce this hazard,

In my opinion, it involves the human element and I do not know of any way to overcome the cause.

Frank S. Sandeman, Chief, Long Beach, Cal.: No loss of life has occurred in the last two years in this type of fire, but we have six fires of this type on record. Probably others have occurred, but have not been reported.

It is felt that an educational campaign carried through the medium of the press by use of repetitive articles would do much to reduce this type of fire. If an ordinance were adopted, it would present enforcement problems.

Frank F. Schroeder, Chief, Everett, Wash.: We have sixteen fires caused by smoking in bed.

I am interested in legislation that would at least control this hazard in hotels and apartment houses.

Photo courtesy W. W. Shaw, Downingtown, Pa., F. D.

"A Horse—My Kingdom for a Horse"

Fire Chief T. L. Emery, of the Pomeroy, Pa., Volunteer Fire Company and Fire Marshal of Chester County, Pa., recently lost a bout with the State Police—and lost his driving privileges, at the same time. Something to do with Pennsylvania's tough 50 m.p.h. speed limit it is reported. The result made it a bit awkward for the Chief, until a fire-conscious and friendly neighbor came to the rescue, with an offer of the use of his pony and cart, if and when the need should arise. Fortunately for the Chief, and the Junior Dobbin, they were not called upon to trot any extended responses, and when the facts of the dilemma became known, the Chief was issued a restricted driver's license and Dobbin Junior was "put in reserve."

Arson Investigation

(*Continued from page* 481)

often freely admit his guilt and sign a confession. In cases where the suspect continues to deny his guilt after a positive test, and the investigator knows that he is lying, he will seek additional evidence to prove this. In the event of a negative test, the investigator can be fairly certain that he is wrong about the suspect, and may then write such person off his list. However, it is well for the investigator to remember before writing anyone off his list that the polygraph machine is of little value when dealing with mental defectives. Hardened criminals are often able to evade a polygraph test. It is well, therefore, when dealing with this type of arsonist to continue the investigation even though the polygraph results are negative.

Preparing a Case for the Prosecutor

When the investigator has gathered his evidence, he should take it to the prosecutor for evaluation and consult with the prosecutor for his opinion and advice. All investigators should arrange their evidence so that the prosecutor can readily understand all of the elements of the case when he prepares the evidence for court. The duty of properly and thoroughly preparing a case is primarily that of the investigator, and he is not relieved of his responsibility until the case is taken over in its entirety by the District Attorney.

The best method of preparing a case for court is for the investigator to go over all his daily reports and cull out what he finds to be absolutely irrelevant. He should also strike out all of the facts gathered early in the investigation which subsequently prove to be erroneous. He can then prepare a complete brief of the entire investigation in synopsis form. Such brief should contain all essential facts which convey the information he has pertaining to the case. In the brief should be noted the names of all the witnesses, the sequence of events, the various points he wishes to establish and the evidence by which he intends to prove these points. He should then catalog all the real or physical evidence, such as any chemicals, gasoline, candles, timing devices et cetera, that he has in his possession. A list of the witnesses who will be able to furnish direct evidence as to what they saw, smelled or heard, should be submitted. It would be well for him to name these witnesses on his list in the order in which he believes they should be called, and his reason for such arrangement. He should also submit his file of signed statements and his evaluation of their evidential value. When he intends to prove his case by circumstantial evidence, he should set forth the links in the chain with mathematical accuracy so that the necessary sequences which follow will permit of but one interpretation of the evidence and can prove beyond a reasonable doubt that the accused set the fire.

After the investigator has prepared his brief and indexed his evidence, he should then arrange for a personal discussion of the case with the prosecutor. Together, a perusal of the actual copies of the statements and other documents will bring out many facts which the investigator may have overlooked. Such

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personal discussions are essential, for in this way the prosecutor can point out any flaws that the investigator may have overlooked and give him time to secure additional evidence before taking the case to the Grand Jury. Loopholes which will undoubtedly be found by the defense are discovered in this way before it is too late. Quite frequently the prosecutor, because of his legal training, is able to point out to the investigator where it will be necessary to further check on a few points which the prosecutor may believe to be weak. In this way he can safeguard against moves by the attorney for the defense. In a great many cases, details which the investigator has overlooked are brought to his attention by an alert Prosecuting Attorney. These conferences are valuable to the investigator, as they will remove a false sense of security which he previously may have entertained, and give him time to seek additional evidence which will close all the loopholes.

Conclusion

In conclusion, it must be pointed out that a great deal depends on the attitude with which the investigator approaches his work. If he looks upon it as only another job and has no real interest in the public service which he is rendering, then he will be a poor investigator and should seek some other line of work. A good arson investigator must be prepared to work long hours with a great deal of night work, which will keep him away from his family when he is on a case. His pay will be small and much of the compensation will come from the satisfaction of a job well done. An investigator must be prepared for a great many disappointments, and he will frequently see a case on which he has spent long hours thrown out of court for lack of evidence when he himself is convinced beyond all question that the accused was guilty of setting the fire.

These disappointments an investigator must be prepared for. He knows that under the Constitution of the United States all accused persons are presumed to be innocent until proven guilty beyond a reasonable doubt. Most arson cases must be proven by circumstantial evidence to a very large extent. It is the duty of the jury to draw the appropriate conclusion from the evidence presented. The investigator cannot in all cases produce sufficient evidence to satisfy all juries beyond a reasonable doubt that the accused deliberately set the fire.

In all cases, the investigator must be prepared to go into court with clean hands and must never be a party to a frame-up, or should he participate in any plan for the illegal entrapment of an arsonist. An investigator must never offer any inducement to an accomplice of the accused to have him testify against his partner in crime. He should never give any promise of immunity or other persuasions to obtain an admission of guilt. The investigator must, as far as possible, avoid all publicity, and should never do anything which would be a discredit to the investigation. He must be prepared to suffer many disappointments, but never let a disappointment discourage him in doing a good job. *The End*

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Photography

(*Continued from page* 475)

among the personnel of a large department.

4. Once a film production program is underway, keep the public and city officials informed of its progress and the value of the job being done.

5. Finally, it must be remembered that it may take a city from 5 to 10 years to get started on a good production program of fire safety films. It took Los Angeles that long.

6. Patience and planning have been the key words in the development of our program.

Fire Service Rescue

(*Continued from page* 483)

rescue personnel should don helmet, turnout coat and gloves. Low top or "Oxford" type shoes should never be worn. It takes time to develop a good rescue squad. For the member to render himself impotent in the face of disaster at the crucial moment can be costly.

If the incident is of a gaseous nature, rescue personnel should protect their respiratory system by donning breathing apparatus before entry and in "good" air. If the gas is of the type that attacks the body as well as the respiratory system, personnel should further protect themselves by confining the sleeves of their coats at the wrist and the legs of their pants at the ankles with rubber bands. Such rubber bands should be carried in breathing apparatus cases. If time permits, they should fur-

ther protect their bodies by using petrolatum to grease under the armpits and at the genitals. When entering any gaseous area with breathing apparatus, a life line, tied securely to the body of the rescuer, should be trailed in with him, with assisting personnel feeding the line in and alert to signal communications.

For your own safety, check any personal equipment that you may have to use. Any defective equipment of any kind should be immediately reported to your superior officer and a notation made of the date of report. Take defective equipment off the apparatus and red tag it so others will not use it. Do not use grease or oil on any equipment using compressed oxygen.

If the hazard is electrical, personnel should don approved lineman's rubber gloves covered with protective leather gloves before attempting to cut or move any electrical wires or other conductors. If it is a pole-top rescue, remove the victim's spurs before attempting to lower him. Remember that any unconscious victim of electric shock may "come to" fighting, and unless safeguards are taken, he may do damage to the rescuer. Plastic helmets are better insulators than metal ones. Do not depend on rubber boots as insulation from ground. In most cases, materials used in their manufacture render them conductive of electricity.

If the rescue is in a hole or an excavation, remember that further slides or cave-ins may take place. Such slides may engulf the rescuer. Poison gases often settle to the bottom of holes or depressions and in many cases the person attempting the rescue has been overcome. When a victim lies at the bottom of a hole without apparent physical damage, always wear breathing apparatus when attempting a rescue.

If the rescue is being performed in a potentially explosive area, remember that any fire from a cutting torch or spark from an unapproved flashlight or from static electricity can be the cause of explosion. Avoid the use of fire or sparking devices when performing a rescue in hospital surgeries, laboratories or drug rooms, and when fire-connected, have hose streams played on gas containers during this type of rescue operation.

When using the cutting torch, always wear goggles and gloves. For daytime cutting, wear the dark lense goggles usually provided with actylene cutting outfits. Ignite the acetylene before enough gas has escaped to create a hazard. Watch out for sparks, molten metal and burned hoses. Protect yourself as well as the victim. Never remain longer than necessary in a confined space where carbon tetrachloride has been used as an extinguishing agent. Refrain from touching glass particles from broken fluorescent lights.

If the rescue is to be made in a second, third or more story structure, always wear a pompier belt and carry a life line. Don gloves before attempting to slide down any rope.

If the rescue is in a mountain area and fire-connected, remember that it is better to wear wool than cotton. High top boots can help to prevent being burned in hot ashes and embers. The pants worn outside the boots can help to frustrate serious snake bite. If possible do not get into a pocket where a shift of wind can cause the fire to entrap you. Carry a canteen.

If it is a water rescue, remember that

IF YOU'RE "ON THE FENCE"
ABOUT THE BEST FIRE EQUIPMENT . . .

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INDIAN
FIRE PUMPS
"THE ONE MAN FIRE DEPARTMENT"

• Don't just take our word for it. Send for catalog containing many testimonials similar to that shown below. Write today.

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Read what this user says:

"We have been using a dozen of your ***INDIAN FIRE PUMPS*** *for the past four years. Eight of these are used in connection with our fire fighting equipment covering woodlands and four are used at our sawmills.*

It is remarkable how quickly these pumps can be brought into service in an emergency. Their action in extinguishing fire is fast and complete and we gladly recommend this equipment to anyone who might have need of their use."

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For booster and high pressure fog lines

There are four good reasons why the fire fighters specify BAR-WAY couplings. Four reasons why BAR-WAY couplings are growing in favour with firemen, hydraulic engineers and others who insist on the best.

- **SAFETY**—The coupling becomes the *strongest part of the hose line.* Tested to 3000 pounds pressure and 500 pounds pull.
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A BOYER
Custom Built Truck delivered to Decatur, Mich.

UNIVERSAL FIRE APPARATUS CORP.
Logansport, Ind.
Successor to BOYER — Established in 1879

you can be more efficient in the necessary after-rescue first aid work by making the rescue by "reaching assist." If it is necessary to make a swimming rescue, remember that the person being rescued can drown the rescuer with one grasping hold.

Remember further that a life, or lives, may depend on your ability to prevent accident to yourself while performing a rescue. Haste causes many accidents. Work deliberately and carefully. Check your work as you go along.

Having successfully performed a rescue, and saved a life without rendering yourself helpless in performing that rescue, and having given the proper first aid after rescue, you will have fulfilled the obligation that has been placed upon you.

The End

Eastern Chiefs Conference

Over 300 fire chiefs, their ladies and guests attended the 26th Annual Conference of the Eastern Association of Fire Chiefs at the Hotel Martinique, New York City, May 19, 20, 21.

Fire Commissioner Jacob Grumet and Fire Chief Peter Loftus officially welcomed the visitors, who enjoyed a crowded program of business and social activities. President, Chief Joseph Giammatteo, of Glen Echo, Md., presided.

The business topics discussed included: Control of oil fires by agitation, by J. L. Risinger, Socony-Vacuum Oil Co., New York; Plane crash problems, by Deputy Chief Edward F. Deigman, Elizabeth, N. J.; Use of petroleum dispersant to prevent oil slick fires, by Wm. F. Van Deven, Essential Chemicals Co., Milwaukee, Wis.; The fireman's responsibility in arson detection, by George Clough, Nassau Co. Fire Marshal; Observations at Yucca Flat Atomic explosion, by Chief Henry Thomas, 1st vice president, I.A.F.C.; and Mutual aid operations—a symposium conducted by Chief Roi Woolley, of FIRE ENGINEERING.

The banquet held at the Martinique, on the 21st, was well attended.

Deputy Fire Chief Thomas P. O'Brien and Chief Fire Marshal Martin Scott of the New York Fire Department handled the details of the Conference, with James E. Jagger and the staff of the I.A.F.C. Headquarters Office cooperating.

The 26 exhibits of fire control and communications equipment were a focal point of interest. Chief Louis Zimmer of Maplewood, N. J., was elected to fill the unexpired term of the late Fire Chief Burnett of Newark, N. J.

The next Conference will be held in Elmira, N. Y., date to be announced later.

Buffalo Firemen Use Amphibious Duwk

Harold R. Becker, Buffalo, N. Y., Fire Commissioner recently announced acquisition of an amphibious "duck" which was refitted by department shops as an auxiliary fireboat.

The Army surplus "duck" was painted red, equipped with flashing lights, siren and pumps fore and aft and christened Engine 29. The craft was fitted with two turret guns which can deliver 1400 gallons a minute. The craft will be used to fight dock fires and city dump fires where water is too shallow for the department boat, the Grattan, to manuever.

Engine 29 will be based at the new

quarters of Engine 10 on Ganson St. near Ohio.

"This will be among the most valuable pieces of equipment in the department," said Commissioner Becker. The Buffalo Common Council last December 9, authorized Commissioner Becker to trade in a 32-year-old fire pumper for the combination water-land fire engine.

PAUL C. DITZEL.

Chicago Fire Toll, 35 Dead

Explosion and fire on April 16, last, destroyed a 4-story factory building of the Haber Corporation, Chicago, Ill., manufacturers of electric appliances, bringing death to 35 persons and injuries to as many others.

Cause of the disaster was not definitely established but could have been ignition of fumes of spirits used to clean castings, or explosion of dusts. It was disclosed that exhaust outlets were located over polishing machines and there were quantities of flammable liquids on the property. Smoking also was reported permitted in the building. It was said a dust collecting system had been installed in the building without a permit from the building department. Extensive remodeling was under way in the building at the time of the holocaust.

On May 5, a coroner's jury held as accidental the deaths of the thirty-five victims. The jurors reported unanimous agreement that there was negligence on the part of the owner of the property, the Haber Corporation, and two companies, Ragnar Benson, Inc., and Wipf Welding Company, which were engaged in the remodelling operations. But the jury was unable to agree as to the degree of negligence in each case.

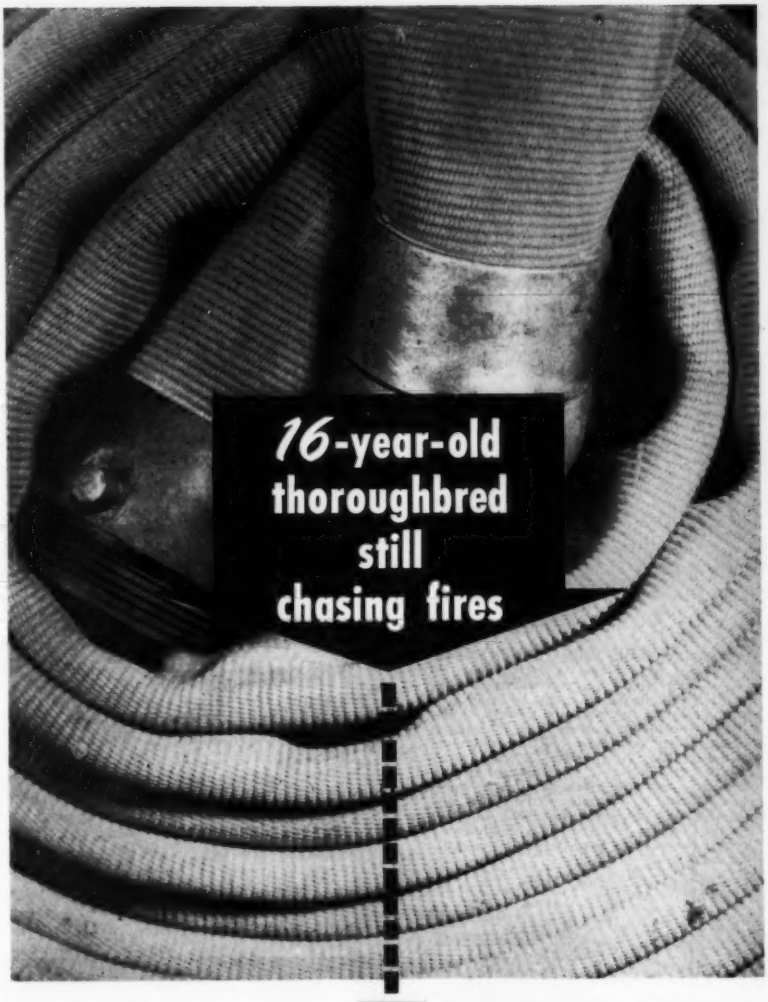
The first alarm was received at 8:47 A.M. Firemen under Battalion Chief Frank Thielman were quickly on the scene to find flames shooting out of each of the 14 second story windows. Persons, some with clothing afire, were jumping from third floor windows, others were running around in the street. Additional alarms were sounded in rapid order and a 5-11 finally brought the total of apparatus units up to 59. Twelve units responded on the first alarm. The 2-11 was struck at 8:49 A.M.; the 3-11 at 8:52 A.M.; the 4-11 at 8:56 A.M. and the 5-11 at 9:00 A.M. This fire, and simultaneous fatal blaze in a nursery, for which an alarm was sounded at 9:09 A.M., had about a third of the city's fire forces enroute to fires or re-locating into empty fire stations, according to Harold Hart, chief fire alarm operator. Two fireboats were called out, but were not used.

This disaster was brought into millions of homes by television and radio. The property loss was estimated at between $150,000 and $225,000.

Warehouse Fire Losses High

According to J. W. T. Babcock, Factory Insurance Association of Chicago, warehouses are currently sustaining the largest average loss per fire in any class of industry.

Mr. Babcock also said "the fact that warehouse space is scarce in practically every part of the country not only makes these warehouse fire losses important from the dollar values and the loss of the storage space, but contributes further to the mounting loss record forcing concerns to use undesirable and unsafe warehousing space."



typical example of REPUBLIC dependability

Old Dobbin had a heart big as a fire helmet . . . a great, fighting heart, and, in his day, entire communities put their trust in his courage and dependability. Old Dobbin's gone, but his trust is carried on by non-mortal sentinels of safety . . .

Republic Rubber Fire Hose was a favorite in Old Dobbin's day. Today it's still chasing fires. Washington Fire Company No. 1 of Conshohocken, Pennsylvania, for example, has used the same Republic Hose for more than 16 years. Other companies report even longer service.

Republic Fire Hose is made with "Counterbalanced Weave" jackets, for easy handling. When specified, it can be permanently protected against mildew, rot and vermin by Republic's exclusive Provar Process.

Republic Rubber offers you a complete line of these thoroughbred firefighters built to your requirements. Write us today for full facts.

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"Almost 30 Years Old and Still Going Strong!"

That's what owners report today about some of earliest models of Pacific Pumpers ever built.

TYPE Z

WHEN THE FIRST Pacific Pumper was introduced, it was a startling innovation. To produce an efficient pump light enough to carry by hand into rugged terrain but powerful enough to deliver an effective flow of water to combat forest blazes was news of national importance. Today, after nearly 30 years, many of the earliest Pacific Pumpers are still in use and are still the favorite of experienced fire fighters . . . mute testimony to the stamina and dependability built into all Pacific Pumpers . . . and to Pacific Pumper's policy of supplying parts for even the earliest models.

TYPE Y

Years of engineering research and thousands of practical field tests made possible the improvements incorporated in the famous Type Y Pacific Pumper . . . the most powerful unit ever built for its weight and size. The Type Y Pacific Pumper quickly won the approval of experienced fire fighters and fire fighting authorities . . . and is still the standby of many of the nation's most practical forest fire fighters. Newer, postwar models of Pacific Pumper are now available . . . all even lighter, more compact and durable, and more versatile for a variety of purposes.

Write for data on the complete line of Pacific Pumpers, hose and accessories

PACIFIC *Marine Supply Co.*
FIRE EQUIPMENT DIVISION
SEATTLE 1, WASHINGTON

Short Cuts and Gadgets

JEWELER'S SAW FOR THE RESCUE KIT

A number of our readers have called our attention to the fact that the rescue kits used by many fire departments do not contain a jeweler's saw. And they remind us that this is one of the handiest little gadgets a fire rescue crew can have to remove rings and other encumbrances which may jam on the fingers.

Recently, St. Paul, Minn., firemen removed a lipstick case which had in some way, known only to children, become jammed on the little finger of a 7-year-old tot. The jeweler's saw did the trick in a jiffy with no injury to the digit.

Far more often, however, the device may be used within the fire department itself to free the fingers of fire fighters from something that has snagged them.

* * *

NEW RIGID STRETCHER FOR HANDLING BACK INJURIES

Many times, in the administration of emergency first aid and transportation of a patient, the use of a suitable device to immobilize an actual or suspected fracture or injury to the spine is required. Usually this device is a rigid backboard splint approximately six feet long and sixteen to eighteen inches in width. Carrying handles are fitted into the board and these are also used to tie the patient on the stretcher with folded triangular bandages. With the other first aid equipment, such as a resuscitator, complete bandage assortment, extra oxygen bottles, blankets and other lesser articles, the problem of storage of such a lengthy device as six-foot wooden stretcher or backboard and still have unhampered working space in an ambulance is one of no small importance.

Completely telescoped stretcher placed in recess in ambulance.

Howard Bever, an Engineer in the Long Beach Fire Department, has developed a rigid stretcher which is suitable for broken back cases but yet may be telescoped to half its extended length. This permits storage in a compartment of limited capacity. The patient is secured on the stretcher and transported to the hospital. Upon arrival there, it is necessary only to place patient and stretcher upon the x-ray table and with very few exceptions patient may be x-rayed while on the stretcher as construction is of wood with aluminum fittings, which permits a satisfactory picture. This eliminates subjecting the patient to unnecessary handling with the increased possibility of further aggravating or extending the injury.

Stretcher fully extended.

The accompanying photographs indicate the type of stretcher, its use and storage.

The stretcher is constructed of birch, closely fitted to eliminate racking or flexibility, and waxed to prevent sticking. The idea developed from the new collapsible-type painter's scaffold. The stretcher has been in service for over a year and has been given a thorough test in the Long Beach Fire Department, which has three emergency ambulances in constant service responding to over 3,000 emergency calls per year. Each ambulance has two of these stretchers as standard equipment.

NOTE: *The editors are indebted to Fire Chief Frank S. Sandeman for this interesting contribution.*

* * *

"ENDLESS CHAIN" FIRE NOTIFICATION

In 1951, the Mattydale, Fire Department, East Syracuse, N. Y., developed a "telephone alarm system" which is worth passing along to our readers.

The department has areas (like many another volunteer department) known as "dead spots" where the community siren cannot be heard under certain weather conditions or, more important, during a power failure.

To help overcome this, now when the siren sounds, the three firemen living closest to the fire station have their wives each start calling four other firemen's homes, and the wives of firemen in these other homes, in turn continue the process, while firemen are on their way to the fire station, until all firemen have been notified.

Of course, if one of the fireman's fam-

ily is not at home, this may break the "chain," but if other firemen on that particular circuit hear the siren, they will start calling without waiting for their own call.

This telephone alarm system is permanently in effect and according to Fire Chief Arnold A. Zampi, who contributed this item, they have noticed they now have a larger turnout in response to all fire alarms.

There is a fireman on duty at all times in the Mattydale Fire Station and in case of a power failure the man on duty makes the first three calls to start the telephone alarm system.

* * *

PHILADELPHIA FIREMEN TAUGHT HOW TO OPERATE FORK TRUCKS

Philadelphia fire fighters are to be taught how to operate fork lift trucks which may be found on the scene of warehouse and industrial fires, as though they were a part of their own fire control equipment.

A fork lift truck has been presented to Deputy Fire Commissioners George E. Hink and Paul B. Hartenstein by The Yale & Towne Manufacturing Company, makers, and Battalion Chief Joseph A. Meskill, who is in charge of the department's outstanding fire school, will use it to indoctrinate department personnel into its functions and behavior.

According to the Commissioners, firemen often find their movements blocked in warehouses and industrial plants by stored materials; more often than not, there are fork lift trucks and other materials handling equipment available in the plant that is threatened by the fire, and knowledge of how to operate these devices, it is believed, will enable firemen to clear the way to the source of the fire. Such equipment also may assist in salvage work and, more important, may prove an asset in rescue operations.

A Yale materials handling expert will conduct the initial training program at the School.

* * *

—BIG LITTLE THING

Here's just one of those big little short-cuts you'd think every volunteer fire department would adopt; but just for the fun of it, check up on the number that do it, and those that don't. You'll be surprised!

This is the short-cut: marking the size of helmets in bold white numerals on the underside of the fireman's helmet so he won't have to waste time and gum things up "trying on" hats when he goes into action.

Ditto for boots, too!

Two-Gun Girl, 14, Held in $1,000,000 Fire

A 14-year-old girl, dressed as a boy and armed with two pistols, was arrested May 19 as a suspect in a million-dollar fire which destroyed an Albuquerque, N. M., department store. Officers caught the girl behind the store, with a cut hand and the two 22 caliber automatic pistols, believed stolen from the store.

Only the cracked outer wall of the two-story building remained after the fire, which raged out of control until nearly dawn, despite efforts of the entire city fire department and aid from nearby Kirkland Air Force Base. Police also were searching for a boy friend of the girl who got away in the excitement.

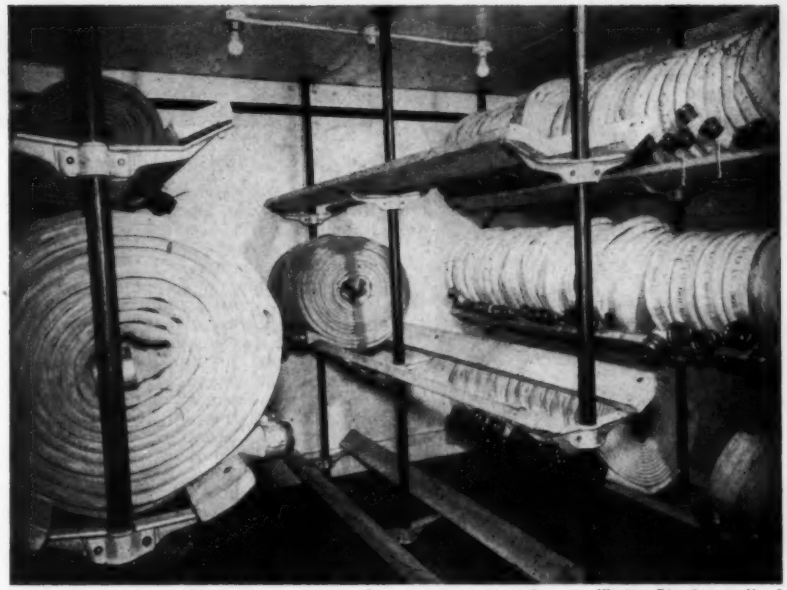
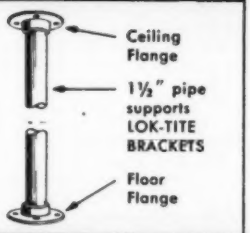


Photo Courtesy Wichita Fire Station No. 1

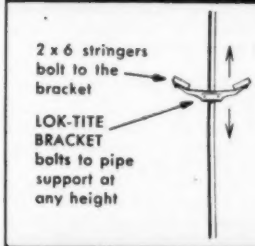
The Solution to Hose Storage Problems

FEATURES

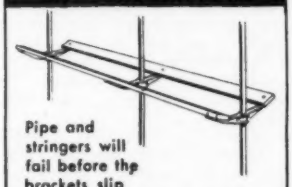
SIMPLE INSTALLATION



EASY ADJUSTMENT



BIG LOAD SUPPORT



Build Your Own Racks With Lok-Tite Brackets

MIGHTY few station houses have all the room they need for good housekeeping. Lok-Tite brackets help solve the hose storage problem by allowing ample ventilation and access in limited storage space.

Build your own racks with new or used materials. Design your own storage to take full advantage of the space available. Have ample room for fittings inspection and ventilation.

Lok-Tite brackets, light weight aluminum alloy, designed for strength and easy installation.

$3.65 F.O.B. Wichita

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157 NORTH WACO STREET · WICHITA, KANSAS

The EK HOOK
(Patented)

The MODERN PIKE POLE and FORCIBLE ENTRY TOOL

THIS tool outmodes the old pike poles as effectively as motor apparatus replaced horse drawn wagons. It's a mean, modern, miracle of a tool. It's tough! Made of chrome nickel molybdenum alloy steel — heat treated, ground and sharpened.

(Working Points Indicated by Letters)
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F—BLADE and FULCRUM
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It is far more efficient and has more utility than any other tool of its type designed for demolition, ventilation and forcibly entry for all Fire Department and Civilian Defense Units.

Weight with 6' handle 7½ lbs.

Up to 6' **$24.85**

Longer length at 85¢ per ft. additional.

Sold only thru distributors.
Distributors' franchises now available.

The C. D. PIKE & FIRE HOOK MFG. CORP.
207 ORANGE ST., NEW HAVEN, CONN.

The WATCH DESK

Overhauling the firemanic news of the day

by ROI B. WOOLLEY

This Sets Some Kind of Precedent!

When a dog bites a man, it isn't news. But when a man bites a dog, it is news.

And when a fireman—or we might say, a fire chief—wants to work for nothing after drawing a salary for the past five years—that's also news.

The story comes from the small town of Easton, Conn., a few miles north of Bridgeport. Arthur A. Bush, who makes his livelihood as an overseer for the Bridgeport Hydraulic Company, is also Chief of the Easton Volunteer Fire Department. For the past five years he has been receiving a salary of $300 annually.

Recently he notified the Board of Selectmen that he will no longer accept town pay. He pointed out that many of the Easton volunteers were serving the Department without remuneration and he feels his services are more in the capacity of a volunteer than as a paid firefighter. Chief Bush has been associated with the Easton department for the past 32 years.

TOM MAGNER

* * *

Strictly for the Birds!

The good poultry raisers of the nation seem not to have learned the lessons of fire prevention and protection. At least turkey breeders down around Charlotte, N. C., way do not, if we may judge by press reports.

Latest account of destructive fires in such installations comes to us from Charlotte, via Contrib' D. G. Spencer. This relates how in March a 2,000-capacity turkey plant went up in smoke on the W. C. Warlick farm near Wilkinsville, N. C. It was the second Cherokee County turkey house destroyed by fire this year. County Farm Agent T. B. Lee said a 3,000-capacity house burned in January on the B. L. Parris farm in State Line community.

This newest blaze started from an exploding oil heated brooder and came at a time when preparations were being made for shipment of the birds. About 15 brooders were housed in the structure.

* * *

Lure of the Open Road a Spring Siren Song!

It must have been Spring, or something! But 19-year-old Walter Burness, a Marine private, was nabbed in Arlington, Va., early April 20, last, en route through that community on a bright red fire engine, known as an "M-55 Firefighter" at Camp Goettge on the Quantico Marine Base, from which Burness and the apparatus went AWOL.

Police said Marine officials reported the apparatus missing shortly after midnight on the 19th, and had no idea where it had gone, but figured it "probably was out fighting a brush fire somewhere." It wasn't until about 3:00 A.M. that they started looking.

That was about the time that Arlington Police Officers Clemments and Connors spotted a fire engine "going no place" and pulled it over to the curb on Lee Highway at 20th Street.

"Where's the fire?" they asked the driver, who turned out to be Burness. They said the latter had no ready answers and no identification so they took him to the station. There they discovered he had taken the long route to Washington, going through Dumphries, Camp Springs and Manassas.

He ran low on gas near Centerville, Police said, and pulled into a gas station. They reported this conversation with the station attendant:

"I'll trade you one of these hose nozzles for some gas."

"How do I know you're a fireman?"

"I'll show you." With that the road-hopping Marine clanged the fire bell three times.

"I guess you are" was the reply. And Burness got 18 gallons of gas for the nozzle, and was off again.

An official at Quantico hadn't discovered why the engine was taken: At any rate it "went," and now it's back!

Thanks, IRVING JOHNSON

* * *

Case of Love's Labor Lost?

A March Air Base (Calif.) carpenter, H. C. Hayes, while driving to work early on the morning of March 7, last, discovered a fire in the Jackrabbit Cafe, south of Riverside, California.

Stepping into a phone booth alongside the cafe, Mr. Hayes dutifully deposited his dime and reported to the operator that there was a fire at his location.

When he had completed his call, he returned to his car for some tools, and proceeded to remove the telephone booth bodily from its hazardous position.

The booth was the only thing saved in the $15,000 fire!

All of which it would seem entitled Mr. Hayes to at least a tilt of the topper. But unfortunately, it is rumored differently. Instead, he received a warning from the telephone company about tampering with their property. Nor, do we suspect, did he even receive back his dime token.

Shucks, there just ain't no pleasing some folks!

Thanks, J. L. JOHNSON

* * *

Boise Ditchmaster Gets Real "Hot Foot"

A Boise, Idaho, ditchmaster was hospitalized recently because his shoes exploded. 'Struth!

Clarence Martin said he put sodium chlorate in some ditches about three weeks before his "accident." The weather was wet and his shoes apparently soaked up some of the weed-killing chemical.

Of a Friday, as he was installing a head-gate, he set fire to some grass to clear a ditch. In the operation he kicked some burning trash into the fire—and his shoes exploded, leaving the uppers in shreds.

Martin ran across the road and jumped into a puddle of water. Shortly after, he entered a hospital with first and third degree burns. We don't imagine he walked in—either!

* * *

Mt. Lebanon Landlubbers Battle First Boat Blaze

Mt. Lebanon, Pa., is strictly a land-locked community. It's fire fighters never fought a boat fire—that is, until just about a year ago. Then land-locked Mt. Lebanon had its first "marine disaster" in its history, according to Assistant Fire Chief Samuel Hasley.

Chief Hasley answered the phone in the Mt. Lebanon fire house. "There's a

boat on fire" an excited female voice cried.

The good Chief assumed, not illogically, that the boat was somewhere on one of Pittsburgh's three rivers.

"I believe you want the city firemen," he told the woman.

"No, no, no, it's in the yard of the Avon Court Apartments," wailed the voice. "Hurry up!"

Chief Hasley leaped to the service truck and hustled over to the apartments at 15 Bower Hill rd.

Sure enough; there was a boat, all right, and it was on fire—canvas-covered rowboat on an auto trailer.

Damages to boat, tarp' and fishing gear stored therein were estimated at $200. (Thanks, E. J. O'NEILL.)

* * *

First (and Only) False Alarm Over TV!

We're only just beginning to realize the infinite ramifications of television. Take the case of Mrs. Mary O'Connor, and of the members of Engine 84 and Ladder 34, New York Fire Department, ferinstance.

Mrs. O'Connor resides in the Washington Heights section of Manhattan. Like many of her ilk she had a yen to get on a TV show.

She did it and one night she was a guest on Don Russell's "Take a Break" over the DuMont network.

While being interviewed, Mrs. O'Connor suddenly began to worry whether or not she had turned off the electric iron in her apartment (what with the haste in getting away for the TV, and all).

Mr. Russell, a man of action, as soon as he learned of her plight, appealed to viewers living near Mrs. O'Connor's who might possibly be "seeing-in" to do what they could help guard against the possibility of fire in her apartment.

As luck would have it, the crews of Engine 84 and Ladder 34—or as many of 'em as weren't tackling "committee work" at the moment, were watching the show, in their station at 513 W. 161st street.

Ladder 34 went out on the double to Mrs. O'Connor's abode and checked on the iron. It was off. And they returned to their TV.

Thanks N. V. COOPER

* * *

Bursting Bottles Tap in Taproom Alarm

Two members of the Manchester, N. H., Fire Department suffered cuts and other fire fighters were hampered by bursting beer bottles in their attack on a fire which wrecked part of the Syrian-America Club in that city last month.

The fire fighters, Maurice Bourque and Ralph Collins, were treated for cuts on hands and arms at Sacred Heart Hospital. Fire Chief Gene Guevin said the blaze was discovered by a woman neighbor who heard beer bottles exploding in the club's first floor taproom.

When the fire fighters arrived, they were met by a barrage of flying glass and all during the fire it was a question of *"Timber!"* or *"Low Bridge."*

Club officials said they had just finished a $5,000 improvement program but they were unable to account for the particularly "pop-hoppy" contents of the beverage containers.

Some 60 persons were driven from their homes in adjacent buildings as firemen battled amid the bottle "bombing" to bring the blaze under control.

Said one of the Brothers, picking up—*"There sure musta been somethin' in that Syrian-American beer!*

SCOTT BACK-PAK

Fight Fires Quickly, Safely -at the source!

with

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Scott Air-Paks are reducing fire losses by permitting action at the fire's source — quickly, and without fear of unknown smoke or fume hazards. In less than a minute an Air-Pak is on the wearer "ready to go", with a supply of cool, confidence-inspiring *air* (not oxygen) instantly available.

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With Our Readers

Value of Public Relations Program

To the Editor:

Congratulation on your March 1953 editorial. I read it with a great deal of interest and sympathy.

We in civil service have been finding it more difficult to recruit properly qualified rookie firemen as well as rookie policemen and we have come to the conclusion that some of the reasons lie in the lack of public prestige for these positions. Certainly the instance which you cite in your editorial makes recruiting even more difficult. You and I realize, of course, that with both the police and fire service, our insurance people are constantly expressing the effectiveness of the morale, the equipment and manpower through insurance rates. The public pays for either a good well equipped fire department or they pay higher insurance rates. You and I well know, too, that a city or community would be financially better off if the firemen never had to respond to a fire call; that even with the best of insurance coverage, fires are costly.

I, for one, certainly hope that you will follow up this editorial lead and help fire departments generally understand the elements of a good public relations program, how to go about attempting to achieve it and the necessity for constantly being on the alert with their public relations. Any suggestions which you may have to help us present the work of fire fighting more effectively in order to secure a wider appreciation and acceptance of the opportunities in this field of endeavor would be appreciated very much.

My congratulations and earnest wish that our fire departments can become good practitioners of sound and effective public relations.

Cordially yours,
MUNICIPAL SERVICE DIVISION
HENRY J. MCFARLAND,
Director

State of New York
Department of Civil Service
Albany, N. Y.,
April 8, 1953

Effective Community Fire Protection

To the Editor:

For several months I have read with interest the Round Table discussion on rural fire protection and cooperation, and from some of the replies, I have conceived a plan for our own use.

We are a small town of some 1700 population, surrounded by agriculture. We have had for several years a 500 GPM standard fire truck equipped with a booster tank of 150 gallons. About four miles from us is a smaller town of some 400 population with no fire protection and no water supply generally. One private concern there has a well supplying 650 gallons per minute with an elevated storage tank of some 100,000 gallons, but it is available only for his property and for some adjacent property that can be reached by the available hose. He has refused to give us permission to use the water as we see fit, but elects to give permission when the particular fire we're asked to help with is in progress.

From some of the Round Table replies, I saw that it was not too much to expect these unprotected areas to help, and inasmuch as we have made no charges for going to their fires, decided to go into another plan. We asked that town as well as some other communities within a five-mile radius, to contribute a sum, and to this we added contributions from some lumber yards in and around town which needed better protection, plus the difference from our own funds, and bought a truck with an 800-gallon tank, and mounted a booster reel, 500 feet of 1½-inch hose and about 300 feet 2½-inch hose. This truck is equipped with a 200 GPM pump with 2½-inch intake and two 1½-inch discharges. We can draft water from hydrant or stream. We make no charge for our services, depending on these gifts for a large portion of the initial cost of the equipment, which we also use here in town as we see fit.

There is no joint ownership, no joint control. The equipment is owned and operated by us on a first call-first go basis.

Our department is composed of one paid man and sixteen volunteers, which are paid on a basis of calls answered.

Much of this is a result of reading your paper, and we thought it might be of interest to you. We enjoy the discussions.

Very truly yours,
DONOVAN E. SMITH
Fire Chief

Wadley, Ga.
April 27, 1953

Copy of New York Fire College Course Sought

To the Editor:

I wonder if any of your readers can tell me where I can secure a copy of the publication "Fire College Courses" which I believe your Journal (then named Fire and Water Engineering) issued about 1919 or 1920?

This publication, with paper cover, contained a series of lectures delivered by the then Chief of Department John Kenlon, and his Deputies and Battalion Chiefs which previously had been published in magazine form by "Fire and Water Engineering."

Sincerely,
JOHN J. BOYLE, JR.,
Division of Fire Prevention
& Combustibles,
Boroughs of Brooklyn and Queens,
New York Fire Department

Editor's Note: Brother Boyle isn't the first to seek this particular publication. Any of our readers who can aid him will find him more than grateful.

Adequate Fire Defense Measures

To the Editor:

This is just a note to thank you for devoting the editorial page of the February, 1953 issue of FIRE ENGINEERING to the East River Report on Civil Defense.

In this you said one thing which you can probably say more gracefully than anyone else, namely, that there is a job for the fire service to do in deciding what fire defense measures represent reasonable adequacy.

We have many good minds in the fire service. I am sure we both wish that they were perhaps less bashful and more articulate.

Sincerely yours,
HORATIO BOND,
Chief Engineer

National Fire Protection Association,
Boston, Mass.
March 2, 1953

What's Burning

THE following list includes fires of $10,000 loss and over in the United States and Canada for the month of May, 1953.

Month Ending May 31, 1953

Alexander City, Ala.—Russell Pipe and Foundry Co. destroyed.
Phoenix, Ariz.—Administration bldg. at Tourea Land & Cattle Co. destroyed. Loss included Stockyards Cafe and swank Cowmen's Club.
Greenwood, Ark.—Greenwood Democrat, weekly newspaper plt., Palace Theatre and adj. bldg. remodeled for a grocery, destroyed.
Hickory Ridge, Ark.—Hickory Ridge School, Cross County, destroyed.
Texarkana, Ark.—Helms men's shop, Crosnoe dry goods store, Bell radio store, garage and flower shop in business section, destroyed. Accumulated gas.
Texarkana, Ark.—Whse. of Riverside Box Co. destroyed.
Berkeley, Cal.—J. C. Penney Store damaged.
Eureka, Cal.—Firestone Tire & Rubber Co. destroyed.
Hawthorne, Cal.—Three bldgs. of American Latex Products Co., destroyed.
Long Beach, Cal.—Foothill Cafe destroyed.
Los Angeles, Cal.—Machine Sales Co. plt. destroyed.
Los Angeles, Cal.—Cold Metal Products Co. damaged.
Los Angeles, Cal.—Starling Products Co., mfrs. of paper plates destroyed.
Palm Springs, Cal.—Deep Well Ranch, dining room and bar, damaged.
San Francisco, Cal.—San Francisco Wire & Iron Works damaged.
South Gate, Cal.—Junk yds. of Watts Junk Co. and Chandler & Friend Junk Co., next door, destroyed.
Jacksonville, Fla.—Wotring Feed Co. whse. destroyed.
East Point, Ga.—Waste whse. of Egan Warehouse Co., containing merchandise of Henry Chanin Co., destroyed.
McCaysville, Ga.—McCaysville High and Elementary School bldg. destroyed.
Coeur d'Alene, Ida.—State Line Gardens night club destroyed.
Anna, Ill.—Gill Motor Sales Agency destroyed.
Chicago, Ill.—Roseco Garage shared by Taylor Tire & Battery Co. destroyed. Explosion of gasoline tank from welding operations. Twenty automobiles and 400 tires were destroyed.
Chicago, Ill.—Whse. of Ingersoll Products div. of Borg-Warner Co. damaged.
Chicago, Ill.—Edward Hines Lumber Co. yd. damaged. Boys playing with matches.
O'Fallon, Ill.—Shamrock Hotel and L. Allen & Sons Clothing Co. store destroyed.
West Chicago, Ill.—North Western Railway bldg. damaged.
Columbus, Ind.—Sap's Wholesale Doughnut Bakery, destroyed. Apron hanging near oven ignited.
Indianapolis, Ind.—Antlers Hotel damaged.
Indianapolis, Ind.—Shelby Upholstering Co. destroyed.
North Webster, Ind.—Thornburg Drug Store, and adj. vacant bldg. and variety store destroyed.
Burlington, Ia.—Bldg. housing Bonewitz Chemicals, Inc. plt., mfrs. of chemicals for food processing plts., destroyed.
Lexington, Ky.—The two-story bldg. of the University of Kentucky's Dairy Center, destroyed.
New Orleans, La.—Whse. at 1431 S. Broad destroyed.
New Orleans, La.—Gibbons Feed Co. damaged.
Lubac, Me.—Three fish smokehouses of Sherman Denbow, Garnet Green Co. and Haskins Canning Corp. and storage bldg. of Somers Hardware Store, damaged.
Baltimore, Md.—Lafayette Market destroyed. Fire extended across streets, destroyed 12 bldgs. and damaging 30.
Baltimore, Md.—Bldg. occupied by Harry Shofar furniture store destroyed; bldg. occupied by Paul Staffer, also destroyed.
Cockeysville, Md.—Barn on Herschel H. Allen estate destroyed.
East Boston, Mass.—Whse. of National Dock & Whse. Co. and waste rag and paper stock of P. Shaffer Co. damaged.
Ann Arbor, Mich.—Business bldg. occupied by Ball Office & Supply, Inc., and Home Quality Laundry damaged.
Benton Harbor, Mich.—Bowling alley operated by Twin Cities Recreation destroyed.
Calumet, Mich.—First Methodist Church and dwelling destroyed. Bolt of lightning.
Clinton, Mich.—Clinton Machine Co. plt. destroyed. Explosion of magnesium materials.

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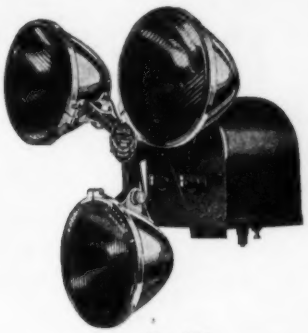

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Grand Rapids, Mich.—Bldg. occupied by Gantos Clothing Shop and Becker Shop, destroyed. Incendiary.
New Hudson, Mich.—Barn on Fred Napier farm destroyed. Corn chaff falling on hot electric bulb.
Ypsilanti, Mich.—Nu Huron Restaurant and adj. stores damaged.
Joplin, Mo.—El Paso Hotel in downtown section, destroyed.
Kansas City, Mo.—Liebson grocery destroyed.
St. Louis, Mo.—Furniture whse. of Dau the House Furnisher, Inc., destroyed.
Helena, Mont.—Harvey Hotel destroyed.
Sidney, Neb.—Doran Farms, Inc., No. 4 oil well, three miles west, destroyed.
Keene, N. H.—Two bldgs. of Forest Carey, chickens of Sam Aronoff, Inc., and plastics equip. of Dalbot, Inc., on Victoria st., destroyed.
Eerlin, N. J.—Berlin Auction Sales bldg. damaged.
Elizabeth, N. J.—Bldg. housing Elizabeth Bowl, North Jersey Branch office of International Business Machines Corp. and Acme supermarket, destroyed. Lightning bolt.
Passaic, N. J.—St. Stephen's Church damaged.
Paterson, N. J.—Paterson Skein Dyeing and Finishing Co. destroyed.
Sergeantville, N. J.—Henry Burget's feed store destroyed. Lightning.
Albuquerque, N. M.—Sears-Roebuck dept. store destroyed. Arson.
Albany, N. Y.—Stockport Paper Corp. plt. destroyed.
Bainbridge, N. Y.—Borden Co. resin plt., Chenango County, damaged.
Bingham, N. Y.—Grand Union Super Market and apt. bldg. destroyed.
Dundee, N. Y.—Allen V. Smith, Inc., feed mill, grain elevator, whse. and farm store destroyed.
Harrisville, N. Y.—Lake Bonaparte Hotel, three miles west, Lewis County Community, destroyed.
Montour Falls, N. Y.—Bldg. housing Cronk's Press, a printing plt.; George Hall jewelry store; Vedder & Scott, furniture store and Queen Catherine Tavern, destroyed.
New York, N. Y.—Bldg. occupied by Brick Stores, Briggs Restaurant, B. Reynolds Theatre office, Madison Pharmacy and Garden Cafeteria, heavily damaged.
New York, N. Y.—Bldg. corner 8th Av. & 45th St., occupied by night club, restaurant, luggage shop, shoe store, beauty supply co., printing shop, recording studio and offices of United Auto Workers, damaged considerably.
Utica, N. Y.—Dresher Furniture Co. destroyed.
Mount Airy, N. C.—Martin Memorial Hospital destroyed.
Whiteville, N. C.—Planning mill of Sledge Lumber Co. destroyed.
Sherwood, N. D.—Elevator owned by Farmers Grain Co. destroyed.
Dayton, Ohio—Three apt. bldgs. in Page Manor housing development, under construction, damaged.
Delphos, Ohio—Gramm Trailer Corp. plt. destroyed.
Hudson, Ohio—Storage barn of Hudson Tractor Sales Co. destroyed.
Eugene, Ore.—Golden Pheasant Restaurant and Modern Cleaners damaged.
Halsey, Ore.—Goss Bros. Grain Elevator, destroyed.
Idanha, Ore.—Idanha Shingle Mill destroyed. Faulty electric lines.
Marcus Hook, Pa.—Barger variety store damaged.
New Kensington, Pa.—Wooden grandstand at New Kensington Speedway destroyed. Defective stove.
Philadelphia, Pa.—Bldg. of De Luxe Bedding Co. damaged.
Sayre, Pa.—Bldg. housing Weiss dept. store, Sherwin Williams Paint Co., Lentz photographic studio, Sayre grill, Sayre barber shop and Williams grocery, destroyed.
Scranton, Pa.—New Delaware Lunch restaurant destroyed; adj. bldg. damaged.
York, Pa.—Storage bldg. of American Chain and Cable Co. destroyed.
New Ellenton, S. C.—Thomas Clothing Store, Riddle, Jones & Smith Furniture Store and vacant Baker Bldg., damaged.
West Aberdeen, S. D.—Grain elevator & lumber shed of Hub City Mills, destroyed.
Fayetteville, Tenn.—Main bldg. at Central High School destroyed. Faulty stage wiring.
Athens, Tex.—Cross Roads School at Cross Roads, 12 miles southwest in Henderson County, destroyed. Lightning.
Pulaski, Va.—Electro Plastic Fabrics plt. damaged. Exhaust stack.
Stanardsville, Va.—Four Blue Ridge School barns, Green County, just below Skyline Drive, destroyed.
Stuart, Va.—Stuart Lumber Corp. dry kiln, damaged.
Anacortes, Wash.—Pioneer Shingle Co. destroyed.
Ellensburg, Wash.—Strang's Sporting Goods store destroyed.
Kelso, Wash.—Central Lumber Co. destroyed.

Kennewick, Wash.—Twin-City Livestock Co. destroyed.
Manchester, Wash.—Manchester Grocery lockers destroyed.
Wheeling, W. Va.—Hal Lewis Dress Shop in business district, destroyed.
Cranbrook, B. C.—Allen Hotel Restaurant and Townsman Newspaper plt. destroyed.
Brandon, Man.—Security bldg., three-story structure in heart of shopping district, destroyed.
Pembroke, Ont.—Cement block factory of G. H. Hoffman & Sons, destroyed.
Toronto, Ont.—Locker and pro shop of Thornbill Golf & Country Club destroyed.
Windsor, Ont.—Main bldg. of Standard Paint & Varnish Co. plt. in downtown area, destroyed. Explosion.
Hull, Que.—Bldg. housing Sterlized Wiper Towel Supply Co. and Industrial Bag Co. at suburban Wrightville, damaged.
Montreal, Que.—Val Marie convent in Fort Chambly operated by Les Soeurs Adoratrices Perpetuelles de France, destroyed.
Montreal, Que.—Apt. bldg. at 5589-5613 Esplanade av., damaged.
Montreal, Que.—Bldg. housing variety 5 and 10 cent store and adj. poolroom and bowling alley, St. Hubert street shopping distribt, destroyed.
Quebec, Que.—Canada Hotel, Laroche drug store, Girard tavern, Martel barber shop and Joseph Duval restraurant, New York Cafe and hiring offices of St. Ann Power Co. and Abitibi Power & Paper Co., in the old lower section, destroyed.
Quebec, Que.—Three whses, bakery, stable, showrooms of motor sales firm, grocery store and two apts., downtown, destroyed.
St. Pierre de Wakefield, Que.—St. Peter's Catholic Church destroyed.
St. Remain de Frontenac, Que.—Fourteen bldgs. destroyed and three others damaged. Short circuit.

Among the Buffs

By Paul C. Ditzel

LIKE firemen, the average newspaperman will defend his fellow journalists when it comes down to an argument. But Fire Buff Robert K. Kennedy, 1210 Oak Grove Ave., Burlingame, Calif., sends me an item by a Burlingame columnist. I can't let it pass.

I'm wondering, with Bob, whether this alleged newspaperman ever served an apprenticeship as a police reporter as most newspapermen, including your columnist, did.

With complete dead seriousness, said columnist tells of his fabulous adventures in Chicago. (Now Chicago is my alma mater, so speak kindly of it.) The columnist is so impressed with the Windy Town that he is moved to remark about the city's pre-occupation with fire safety.

Then he puts his foot—shoe, stocking and garters—in his mouth with this sage statement:

"For every downtown fire causing an alarm, 52 pieces of fire fighting equipment are dispatched, no matter how small the blaze, since a conflagration of mammoth proportions can originate in a tiny spark."

Reader Kennedy quickly dashes off a letter asking if the 52-piece assignment is true.

I hope my good friend Earl Schapiro and my other pals in the Chicago Fire Alarm offices read this column. I can hear them all the way out here in this kleig light and smog wilderness! A 52-piece assignment to a Chicago Loop fire is possible, but certainly not on the first alarm. Ordinary response in the downtown area, as it is almost anywhere else in Chicago, is one engine, one truck, one squad, one Fire Insurance Patrol and a Battalion Chief. The 52 pieces would be the total response if a 5-11 alarm was eventually pulled. (It seems

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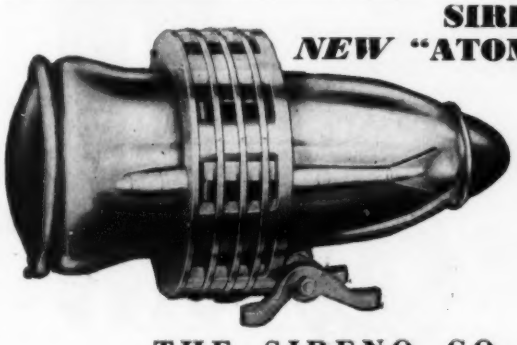

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to me that Burlingame Columnist is pulling his reader's leg.)

There's a new siren in service at Ditzel's Fire Headquarters here in Hollywood. Her name is Denise Michele Ditzel and she tapped in at 7:40 a.m. April 1. (No comments on the date, please, from Brothers Corcoran, Farnham, Robrecht, Werner, Hardy, Bruno—all Big Fire Tycoons in their own right back east.) She hasn't had a run—a fire call, that is—but gurgles that she'll be stepping into her Daddy's fireboots any one of these days. (It shouldn't happen to a girl.)

Former Albany, N. Y., Fireman Jim Maloy was a visitor to the Los Angeles Daily News city room the other day. Jim is in the area to find work as a fireman and describes an incident in Albany which again illustrates the fable about the little boy who cried wolf once too often.

Jim's engine responded to a box alarm in the downtown area early one evening and returned to quarters after finding the box was a false alarm. Several hours later the same box was pulled again. Another false alarm. Still again the hook was pulled and the boys made another dry run.

Then, early in the morning the box clangs in again. The dispatcher decides it's probably another false alarm so asks the police dispatcher to send a squad car to investigate. The police car, which has never been known to throw a very good stream of water, moseys on over to the location.

The car rounds the corner and . . . WOW! The top three floors of a mercantile type building are fully involved. The fire eventually went into a multiple alarm. Such is the life of a fireman, some wit once said.

Fireman-Author Jack Lerch, 751 Gerard Ave., New York, 51, N. Y., penned a note to say he'd be glad to trade information with fans around the country. Jack is a New York fireman and his work appears in Don Shelburne's ace publication, "The National Fire Fan Register." Just as Jack got started on his letter, Box 774 was struck for a second alarm by orders of the 15th Division in Brooklyn. The blaze was at Greene Ave. and Broadway. A few minutes later the third alarm was pulled so Jack had to sign off "and start getting ready to go."

Roy Ringer, LA Daily News camera fan, was driving down Hollywood Blvd. recently when he sees a garbage truck loaded with refuse speed by. The garbage truck is burning. Never one to miss a picture, Roy followed the burning truck to Engine 41 and snapped the action shot as the boys doused the blaze.

The Los Angeles City and County Fire Departments recently have been fighting an unusual number of fires, many of them brush and grass. For a two-week period the temperature zoomed up to as high as 93 degrees and the humidity sank. One day the city struck four second alarms, a rarity for Los Angeles.

I was on the way back from an assignment and, while driving down Wilshire Blvd., spotted a sizable smoke loomup. Nothing had come over the radio so I headed in the direction of the smoke. When I arrived I found a stack of old rubber tires, an auto, a truck, a large home and two sheds fully involved. And no fire apparatus there yet. Many pieces due on the first alarm were already tied up at a two-alarm

fire in Elysian Park. A second alarm was ordered for this blaze, too.

And for those Easterners who don't think LA can have a rough time of it, listen to this story from Eleventh Battalion Chief William Bennett. During that day, Chief Bennett had five alarms during his first few hours of duty. Two of the blazes were second alarms and he held the full first alarm assignment at two others. That's nothing, you say? Wait a minute. The chief did all this and still managed to find time to fix a flat tire on his buggy. Chief Bennett and his driver still don't know how they did it.

An alarm just hit from the Ditzel Nursey, so I'd better respond to see what Her Nibs desires. The address remains the same: 1246 Tamarind Ave., Hollywood 38, Calif. I'm still labor editor at the Daily News, but how much labor is involved is something the city editor constantly wants to know.

World Wide Fire News

By Roi B. Woolley

Death Rides the Highways

Two episodes serves to remind the fire service that potential disaster rides the nation's highways in the transportation of explosives.

In February a truckload of 30,000 pounds of artillery shell fuses exploded like a string of giant firecrackers when the vehicle hit a bridge abutment after a front tire blew out and caught fire, near Chillicothe, Mo.

The truck driver escaped with minor burns by leaping through the flaming door of his truck cab, and fleeing for his life. Soon after the fire involved the truck, the detonator fuses began to explode, some taking off like aerial bombs, sailing high in the air.

Firemen summoned by residents, made no effort to check the flames as Army ordnance experts advised them to keep 1000 feet away. Truck and cargo were a complete loss; the bridge spanning Medicine Creek on Route 36, was damaged. No person was injured however.

The second incident involved a passenger car and a freight truck loaded with 25,000 pounds of TNT, which crashed near Hoxie, Ark., not long after the above accident.

Although the TNT was set afire, following the collision, and burned for two hours, lighting up the surrounding area for miles, it failed to explode, and no one was badly hurt.

The explosive truck, bound for Doyline, La., collided head-on with an automobile containing two persons. Neither they nor the driver of the truck were seriously hurt. During the confusion a motor freight truck rammed the TNT vehicle from the rear, knocking it into a ditch and setting the cargo on fire but still no explosion.

State troopers blocked off traffic and kept both sightseers and fire fighters at a distance.

* * *

Underground Fires Peril British City

It is reported hundreds of small underground fires, believed to have spread from a colliery blaze outside the City of Oldbury, have been burning in Staffordshire, leaving black, stubbled patches in back gardens and woodland, according

Chief, BE READY!

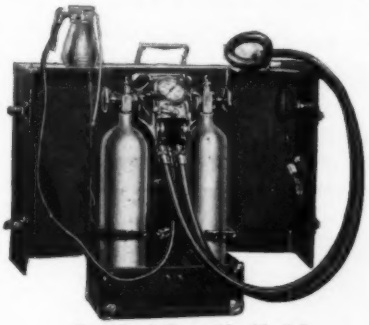
The drowning season is here! You can give your community more efficient protection with the

STEPHENSON RESUSCITATOR

Hundreds of your fellow Chiefs have learned from experience that Stephenson Resuscitators are the most effective, simplest-to-operate and do most for the patient.

Your community looks to you to give it the greatest possible protection. Doing so will increase the good will you now enjoy.

Write today for demonstration without obligation or send for booklet F6 which gives complete information.



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Other Models to Fill Every Need

Save Lives,
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With the New, Improved

STEPHENSON RESUSCITATOR

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HOWE Fire Truck Equipment Meeting Every Service Since 1872
Centrifugal, Rotary and Piston Pumps Supplied
HOWE FIRE APPARATUS CO., 1402 W. 22nd St., Anderson, Indiana

A BETTER Fire Blanket

NEEDS NO PROTECTION

Vinyl coated glass cloth construction provides strong, durable performance under any weather conditions.

LIGHTWEIGHT

76" x 60" Stasafe Fire Blanket weighs only 2½ pounds and folds neatly and compactly out of the way . . . amazingly easy to handle.

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Store it or hang it wherever needed . . . Don't worry about cabinets or containers because none are necessary to protect this "All Weather Fire Blanket".

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The STANDOUT ELECTRIC PLANT for STANDBY ELECTRIC POWER

the New **ONAN "CW"**

5000, AND 10,000 WATTS

★ **COMPACT**—Requires less than one cubic yard of space. 10KW model needs only half the space of other 10KW units.

★ **BUILT FOR HEAVY DUTY**—Twin-cylinder, horizontally-opposed, 4-cycle, air-cooled engines operate at moderate speed.

★ **UNI-DUCT COOLING**—Air cools both engine and generator and is expelled through one small vent which also discharges engine exhaust.

Here's a powerhouse of emergency electricity with features and performance that make it a standout!

The CW is compact and lightweight. It's easier to install and requires a minimum of servicing. Air-cooling avoids trouble from leaking or freezing.

New vacuum cooling and the smooth-running, 4-cycle, twin-cylinder engine give the CW amazing quietness. All moving or heated parts are safely enclosed.

The Onan CW, with all its exclusive advantages, *costs less than any other complete electric plant of its capacity.*

DeLuxe equipment. Nothing extra to buy.

WRITE FOR SPECIFICATIONS

Onan ELECTRIC PLANTS

D. W. ONAN & SONS INC.

5715 University Avenue S.E. • Minneapolis 14, Minnesota

to a spokesman of the local fire brigade.

"There is nothing we can do," the fireman said, "because to locate the whole of the fire would require a tremendous amount of digging. The fire seems to be a good distance from the housing center but there is always the chance it might spread toward it."

The underground fires cause smoke and steam to rise from the ground when it rains. Firemen have driven iron poles deep into the ground and withdrawn them after a few days to check the temperature of the metal and thus determine whether the main fire is drawing closer to the city.

Thanks, R. H. DAVIDSON.

* * *

NATO Standardizes on Gas Tank Colors

The effort to integrate western European defenses has resulted in a decision to paint all gasoline-tank caps on all military planes of the North Atlantic countries red, all hydraulic fuel lines on brakes and landing gear yellow.

This is one outcome of long study and conferences, the object being to enable the pilot of any type of plane of any of the NATO Air Forces to come down at any NATO air base and get his ship serviced and back into the air. It is also an assist to precautionary safety measures in the event of forced landings or crackups in unfamiliar areas.

Other standardization steps are in prospect.

* * *

Don't Give a Hoot for This Toot!

In Oakland, N. J., Civil Defense officials hit on what they thought was a novel idea to warn residents, inexpensively, of air raids.

In circulars, which they spread throughout the town, they asked every automobile owner to blow his car horn for three minutes during the air raid test held at noon on May 2, last.

At zero hour, as imaginary planes flew toward Oakland, only eight car horns were heard forlornly, beeping a warning. Out-of-town motorists, assuming that somebody was celebrating a wedding, merrily drove through the town instead of taking shelter.

The C. D. Corps said it would probably try the test again, or maybe think of something else.

Can anybody whistle through their teeth?

Questions and Answers

Pump Discharge Where Hydrant Pressure Is High

To the Editor:

We recently bought a new 1000-gallon centrifugal pumper. At draft it tested at 1250 gallons per minute.

I was told by our instructor that this pumper would discharge any number of gallons per minute (maybe 2000 to 3000) at a plug on a 12-inch circulating main from the 4-inch opening at 80 pounds plug pressure, using 22 feet of 4½-inch hard suction. Is this correct? W. L. T.

Answer: A centrifugal pumper attached to a hydrant at high hydrant pressure can discharge far more than its rated discharge at rated pressure.

Just what the increase would be can-

not be determined without considerable design data on the specific pump being tested.

It is not possible to calculate accurately what the discharge would be at, for instance, 80 pounds plug pressure using 4½-inch hard suction.

But as noted above, you can expect a very material increase in the discharge due to the help received by the pumper from the 80 pounds plug pressure.

Finding Flow from Friction Loss

To the Editor:

Would appreciate your giving the correct answer to the following fill-in question:

The friction loss in two parallel lines of 2½-inch hose, 100 feet in length is 10 pounds. The total gallons per minute flow through these lines will be —— ? 300, 350, 400, 500, 550 gpm? L. J. M.

Answer: The flow of water through a single line of 2½-inch hose can be calculated with fairly accurate results, when the friction loss per 100 feet is known, by the use of the formula

$Q_1 = \frac{1}{2}\sqrt{2FL} - 0.25$

FL is the friction loss per hundred feet of 2½-inch hose, and Q_1, the flow through the hose in hundreds of gallons per minute.

Where you have two parallel lines of hose, you must first find what the friction loss will be in 100 feet of single line of hose.

The friction loss is given as 10 pounds per 100 feet for the parallel lines. The friction loss in a single line is 3.6 x the friction loss in parallel lines of the same diameter and same length. Thus the friction loss in 100 feet of 2½-inch hose, single line, would be 3.6 x 10, or 36 pounds.

Using this figure in the formula, we get

$Q_1 = \frac{1}{2}\sqrt{2 \times 36} - 0.25$

$Q_1 = \frac{1}{2} \times 8.5 - 0.25$

$= 4.25 - .25$

$= 4$

This is the value of Q_1, or is the number of hundreds of gallons of water flowing in the line. The flow is therefore 400 gallons per minute.

Power Required to Raise Water by Suction and by Pressure

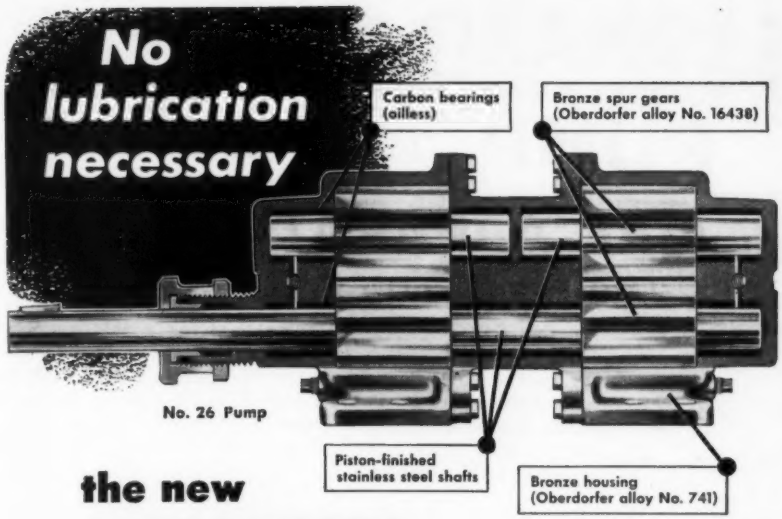
To the Editor:

Our civil service examiner insists that it takes less horsepower to raise water ten feet by suction and then force it up an additional ten feet than it does to force water up 20 feet. What is your opinion? R. E. R.

Answer: As no factors are given in the statement as to friction loss and size of carriers (suction hose, pressure hose, etc.) we must consider the problem strictly from the standpoint of work done by raising of water.

Neglecting such friction loss, etc., it takes precisely the same amount of power to raise a given quantity of water in a given time 20 feet by pressure that it does to raise it ten feet by suction and then force it up an additional ten feet by pressure.

It requires 1 foot-pound of work to raise a pound of water one foot verti-


No lubrication necessary
Carbon bearings (oilless)
Bronze spur gears (Oberdorfer alloy No. 16438)
No. 26 Pump
Piston-finished stainless steel shafts
Bronze housing (Oberdorfer alloy No. 741)

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BRONZE BOOSTER PUMPS

These booster pumps with oilless bearings will last 3 to 5 times longer than the old style equipped with plain bronze bearings. As a result of closer machining tolerances, over 20 feet of suction lift may be depended on.

The No. 13 and No. 26 Oberdorfer Pumps are more fool-proof than they have ever been. When you get to a fire you have something you can count on. It isn't necessary to wear pumps out checking them periodically to see if they will work. These pumps are metering pumps in principle and therefore must produce the same volume for every revolution of the drive shaft.

PERFORMANCE DATA—No. 26 and No. 13 PUMPS

Pump No.	Pump Shaft R.P.M.	Pounds Pressure	Hose Length and Size	Dry Suction Lift in Feet	Vol. in Gal. Per Minute
26	1600	120	500'—1½"	20'	150
13	1600	120	500'—1½"	20'	75

LIST PRICES — No. 26 — $200.00 No. 13 — $90.00

Slightly higher west of Rockies

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Flameproof Chemicals

QRS DE LUXE for drapery material, soft finish, dry cleanable, withstands high temperature. Instant penetration. Approved by State of California and City of N. Y.

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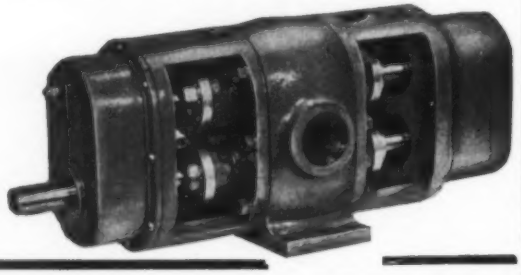
Specify the LEONARD PUMP *on all new trucks!*



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Siren sounds a penetrating warning, red light automatically flashes authority. Traffic opens instantly, day or night. FREE ROLLING feature.

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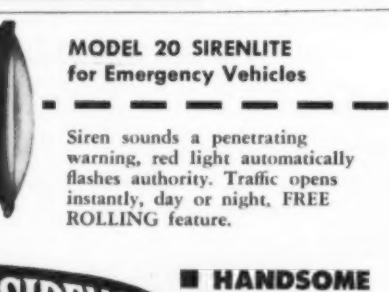
Quick acceleration, power-plus . . . Model M really gets the boys out in a hurry! Used by championship companies from coast to coast. A dependable, heavy-duty siren built of the finest materials throughout.



Complete line of Siren Equipment • *Bulletin on Request*

THE STERLING SIREN FIRE ALARM CO., INC.
10 BARTLETT ST., ROCHESTER 8, N. Y.

cally whether the water is raised by suction or by pressure. And where the same quantity of water is being raised per minute, the horsepower represented in each case would be the same.

Pump Discharge at Less Than Rated Pressure

To the Editor:

We have a rotary pumper with a rated capacity of 1,000 gallons per minute at 120 pounds pump pressure. As stated in your book on hydraulics, the way to find pump discharge at different pressures is to multiply rated capacity of pumper by rated pressure and divide by the pressure at which you wish to find the discharge.

Would you explain the following: This pumper is operating at 90 pounds pump pressure. By your method as stated above, the pumper would be discharging approximately 1,222 gallons per minute. How can a pumper at 90 pounds pump pressure discharge more gallons per minute than at its rated capacity of 1,000 gallons per minute at 120 pounds pump pressure?

T. P.

Answer: Where you have a positive displacement pump, the only way to increase the capacity is to speed the unit up. If a pump discharging 1,000 gallons per minute at 120 pounds pump pressure is using all of the engine power, and if the discharge pressure is reduced, there will be an excess power which can in part be utilized. To utilize this power, it is necessary to speed up the r.p.m. of engine and pump, thus giving you a greater capacity. Actually, however, the rule on discharge based upon the power of the motor does not hold through any major increase in discharge, particularly with positive displacement pumps.

With centrifugal pumps, a material increase above rated capacity can be secured by reducing the discharge pressure.

It is all a question of the ability of the motor to deliver its full power at higher speeds than that at which it operates when discharging rated capacity at rated pressure.

Time Required to Empty Tank

To the Editor:

A tank 12 feet in diameter and 10 feet high is filled with water. The top of the tank is 100 feet above the ground level. Water is flowing out of a 1½-inch orifice at the bottom of the riser, or at the ground level. How long will it take to empty the tank? Disregard the friction loss in the riser due to water flowing.

J. E. T.

Answer: It is first necessary to find the contents, or volume, of water in the tank.

The diameter of the tank is 12 feet and the depth is 10 feet. The volume is equal to area (cross-section) of the tank multiplied by the height.

The area equals 3.1416 x radius squared or 3.1416 x 6 x 6, or 113.0976 square feet.

The volume will then be 10 x 113.0976, or 1130.976, or 1131 cubic feet.

There are 7½ gallons in a cubic foot, so that the total number of gallons in the tank will be 7½ x 1131, or 8,483 gallons.

The height from the surface of the water of the tank to ground level is 100 feet. The height from the bottom of the tank to the ground is 90 feet.

The average head, then, of the water in the tank during emptying is 100 + 90 ÷ 2, or 95 feet. Ninety-five feet give a pressure at the orifice at the bottom of the tank of 41 pounds per square inch approximately. This is secured by multiplying 95 by .434.

$$\text{Discharge} = 29.7 \times d^2 \times \sqrt{P} \times 0.90 \text{ (a coefficient)}$$
$$= 29.7 \times 1\tfrac{1}{2} \times 1\tfrac{1}{2} \times \sqrt{41} \times .90$$
$$= 385 \text{ gallons per minute.}$$

The time required for the tank to drain will then be 8483 ÷ 385, or 23½ minutes approximately.

Methods of Heat Transfer

To the Editor:

Will you answer the following fill-in question:

The passing of heat from one body to another is called ——.

Would not radiation be as correct an answer as conduction? J. D.

Answer: Heat can be passed from one body to another by any one of three means. namely, conduction, convection or radiation.

If the statement had been to the effect that the bodies were in contact, then the word "conduction" would probably have been the best selection.

The definitions of the three means of transfer of heat are:

Conduction: In which heat is conveyed by matter without any visible motion of the matter itself. It is the passing on of heat from the hotter to the colder particles of the material.

Convection: In which heat is transferred by the motion of heated matter, as by a current of hot air or the flow of hot water through pipes.

Radiation: In which heat is propagated like light, by a wave motion in the ether, without the aid of mater. It is by this method that radiant energy (and light) reaches us from the sun.

If the materials were not in contact, you can understand that either convection or radiation might be the answer. If the materials were in contact, then conduction would be the most nearly correct answer, although heat might also be transmitted by radiation between parts not in contact, or by convection if one part were above the other and hot air rising from the hotter would transfer heat to the cooler.

Warning on Fireworks Sale

Nassau County, L. I., police, began campaigning late in May against the sale and use of Fourth of July fireworks. They started circulating thousands of mimeographed pamphlets warning shopkeepers that if they violated the ban on the sale of fireworks, they faced $100 fines or 90-day jail terms, or both. The circulars also pointed out that persons who bought and set off fireworks without permits would be liable to $100 fines. The pamphlet said fireworks included sparklers.

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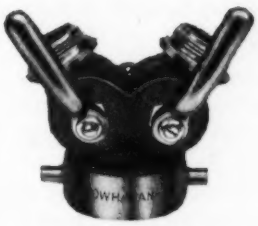
COMPACT DESIGN.

POSITIVE AND EASY SHUT-OFF UNDER ANY PRESSURE.



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- 12′ x 14′, 12′ x 18′, 14′ x 18′.

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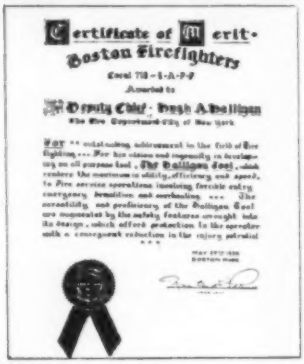
10 TOOLS IN ONE — 1001 USES — DOES EVERYTHING—EVERYWHERE

Harry Henderson's recent story in ARGOSY *on H & L #26, N. Y. Fire Dept.—Runs 2691 (workers 1581) — quotes fireman "Sisty", "The most useful tool on the truck is the Halligan Tool—about 30" long—it is an 'ugly bar' of forged steel—weighs only 8 pounds, can be used in tight places and can do anything."*

Maximum Efficiency Safety Tool—Boston, using over 100, lowered insurance 20% and cut fire losses 21%. *Order yours NOW — F.O.B. U.S.A.* **$36.00**



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Convention Dates

June 15-26—FIRE HAZARD SHORT COURSE, sponsored by School of Technical Training, to be held at Oklahoma A. & M. College, Stillwater, Okla. For information contact the Division of Engineering & Industrial Extension, Room 109-A, Engineering Building, Oklahoma A. & M. College, Stillwater, Okla.

June 17—NORTHWESTERN OHIO VOLUNTEER FIREMEN'S ASSOCIATION. Annual meeting, Delphos, Ohio. Secretary, Earl Campbell, Napoleon, Ohio.

June 17-20—COLORADO STATE FIREMEN'S ASSOCIATION. Annual meeting, Pueblo, Colo. Secretary, Arthur J. Becker, 4250 Stuart Street, Denver 12, Colo.

June 18-20—HUDSON VALLEY VOLUNTEER FIREMEN'S ASSOCIATION. Annual meeting, Lake George, N. Y. Secretary, Charles M. Fales, 92 Clove Avenue, Haverstraw, N. Y.

June 18-20—SALT LAKE CITY FIRE DEPARTMENT ANNUAL FIREMEN'S TRAINING SCHOOL. Annual meeting, Roosevelt Junior High School, Salt Lake City, Utah. Sponsored by Salt Lake City Fire Department, Salt Lake City Area Vocational Training School and the Utah Department of Industrial Education. Director, Assistant Chief D. E. White, 144 East First Street, Salt Lake City.

June18-20—NEVADA FIREMEN'S ASSOCIATION. Annual meeting, Hawthorne, Nev. Information from the Hawthorne Fire Department.

June 22-25—NEW ENGLAND ASSOCIATION OF FIRE CHIEFS. Annual meeting, Wentworth-by-the-Sea. Portsmouth, N. H. Secretary-Treasurer, Chief John W. O'Hearn, 206 Mt. Auburn Street, Watertown, Mass.

June 22-25—NEW ENGLAND DIVISION I.A.F.C. Annual Meeting, Wentworth-by-the-Sea, Portsmouth, N. H. Secretary, Chief A. H. Koltonski, Rutland, Vt.

June 22-27—MISSISSIPPI STATE FIRE SCHOOL. Annual meeting, Mississippi State College, State College, Miss. Sponsored by Mississippi State College, State Department for Vocational Education and the Mississippi State Firemen's Association.

June 23-26—MICHIGAN FIRE SCHOOL. Annual meeting. University of Michigan, Ann Arbor, Mich. Director, M. D. Whale, c/o Department of Public Instruction, Office of Vocational Education, P. O. Box 928, Lansing.

June 24—CENTRAL WESTERN FIREMEN'S ASSOCIATION. Annual meeting, Miamisburg, Ohio. Secretary, William H. Schneider, Miamisburg, Ohio.

June 25-27—NORTHERN CENTRAL NEW YORK VOLUTEER FIREMEN'S ASSOCIATION. Annual meeting, Port Byron, N. Y. Secretary, Samuel J. Pitcher, Box 91, Fairport, N. Y.

June 25-27—SASKATCHEWAN ASSOCIATION OF FIRE CHIEFS. Annual meeting, Saskatoon, Sask. Secretary-Treasurer, Chief G. M. Beach, Weyburn, Sask.

June 26-27—NEW JERSEY AND NEW YORK VOLUNTEER FIREMEN'S ASSOCIATION. Annual meeting, Spring Valley, N. Y. Secretary, Charles M. Fales, 92 Clove Avenue, Haverstraw, N. Y.

June 28—BLACKHAWK FIRE FIGHTERS ASSOCIATION. Annual Fire School, Morrison, Ill. Secertary, M. E. Schryver, Polo, Ill.

July 8-9—ONONDAGA COUNTY VOLUNTEER FIREMEN'S ASSOCIATION. Annual meeting, Baldwinsville, N. Y. Secretary, Howard Harrington, Baldwinsville, N. Y.

July 8-11—WASHINGTON STATE FIRE SCHOOL. Annual meeting, Aberdeen, Wash. Director, Captain R. J. Cook, Assistant State Supervisor of Fireman Training, P. O. Box 250, Olympia, Wash.

July 11-12—JEFFERSON AND WAUKESHA COUNTIES FIREMEN'S ASSOCIATION. Annual tournament, Jefferson, Wis. For information contact Chief John H. Zeh, 1110 Elizabeth Street, Jefferson, Wis.

July 13-15—MISSOURI VALLEY ASSOCIATION OF FIRE CHIEFS. Annual meeting, Omaha, Neb. Secretary-Treasurer, Chief Ray Tiller, 319 East 5th Street, Waterloo, Ia.

July 10—TRI-COUNTY FIREMEN'S ASSOCIATION. Annual meeting, Richmondville, N. Y. Secretary, Carl S. Butler, Box 656, Richmondville, N. Y.

July 16-18—"F" ASSOCIATION FOR FORMER U. S. NAVY, COAST GUARD AND MARINE CORPS FIREFIGHTERS. Annual meeting, Muncie, Ind. Secretary-Treasurer, William J. Mignery, Ontonagon, Mich.

July 16-18—CENTRAL NEW YORK FIREMEN'S ASSOCIATION. Annual meeting, Owego, N. Y. Secretary, George W. Lang, Ellwood Avenue, Cortland, N. Y.

July 18—SUFFOLK COUNTY VOLUNTEER FIREMEN'S ASSOCIATION. Annual drill, Riverhead, L. I., N. Y. Secretary, Harold Hoek, West Sayville, L. I., N. Y.

Convention Dates

July 20-24—FLORIDA STATE FIRE COLLEGE. One of four sessions to be held in Ocala, Fla. Director, J. W. Barnett, Superintendent, P. O. Box 785, Ocala, Fla.

July 20-24—WEST VIRGINIA STATE FIRE SCHOOL. Annual meeting, West Virginia University, Morgantown, W. Va. Director, R. E. Hanna, Jr., Fire Service Extension Schools, West Virginia University, Morgantown, W. Va.

July 21-24—DELAWARE SHORT COURSE FOR FIREMEN. Annual meeting, Dover, Dela. Director, A. B. Anderson, Assistant State Director for Vocational Education, 511 W. 8th Street, Wilmington, Dela.

July 21-24—MARITIME FIRE CHIEFS AND NEWFOUNDLAND FIRE CHIEFS. Annual meeting, Kentville, Nova Scotia. Chief B. R. Wade, Chairman, Program Committee, P. O. Box 413, Kentville, N. S.

July 24-25—COLUMBIA COUNTY VOLUNTEER FIREMEN'S ASSOCIATION. Annual meeting, Valatie, N. Y. Secretary, Edward L. Rowe, P. O. Box 118, Mellenville, N. Y.

July 27-30—MISSOURI FIRE SCHOOL. Annual meeting, University of Missouri, Columbia, Mo. For information, contact J. I. Fetters, Administrative Associate, Adult Education and Extension Service for Firemanship Training, University of Missouri, Columbia.

July 28-29—WESTERN NEW YORK VOLUNTEER FIREMEN'S ASSOCIATION. Annual meeting, Greece, N. Y. Secretary, James H. Surridge, Box 52, Industry, N. Y.

Aug. 1-2—OHIO FIRE SCHOOL. Regional school, North Canton, Ohio. Director, W. T. Banning, State Field Instructor, State Board for Vocational Education, 606 4th Street N. W., New Philadelphia, Ohio.

Aug. 3-7—PENNSYLVANIA FIREMEN'S TRAINING CONFERENCE. Annual meeting, Lewistown, Pa. For information, write Edgar A. Spotz, Public Service Institute, P. O. Box 911, Harrisburg, Pa.

Aug. 5-7—SOUTHWESTERN NEW YORK ASSOCIATION OF VOLUNTEER FIREMEN. Annual meeting, Dunkirk, N. Y. Secretary, Sam J. Bechman, Lake View, Erie County, N. Y.

Aug. 10-12—WISCONSIN FIRE SCHOOL. Annual meeting, University of Wisconsin, Madison, Wis. Director, J. J. Lichty, Bureau of Community Development, Madison 6, Wis.

Aug. 18-19—FIREMEN'S ASSOCIATION OF THE STATE OF NEW YORK. Annual meeting, Binghamton, N. Y. Secretary, Eugene M. Braun, 4025 Main Street, Buffalo 21, N. Y.

Aug. 21-25—FLORIDA STATE FIRE COLLEGE. One of the four sessions to be held in Ocala, Fla. Director, J. W. Barnett, Superintendent, P. O. Box 785, Ocala, Fla.

Aug. 24-28—TEXAS FIREMEN'S TRAINING SCHOOL. Annual meeting, Texas A. & M. College, College Station, Tex. Director, H. R. Brayton, Fire Service Training, A. & M. College, College Station, Tex.

Aug. 24-28—TENNESSEE STATE FIRE SERVICE SCHOOL. Annual meeting, Middle Tennessee State College, Murfreesboro, Tenn. Director, W. A. Seeley, State Supervisor, Trade & Industrial Training, 202 War Memorial Building, Nashville, Tenn.

Aug. 26-29—MONTANA STATE FIREMEN'S SCHOOL. Annual meeting, Polson, Mont. Director, Clayton Brown, Polson Volunteer Fire Department.

Sept. 3-5—WEST VIRGINIA STATE FIREMEN'S ASSOCIATION. Annual meeting, Charles Town, Jefferson County, W. Va. For information, contact The Independent Fire Company of Charles Town, W. Va.

Sept. 8-10—PACIFIC COAST INTER-MOUNTAIN ASSOCIATION OF FIRE CHIEFS. Annual meeting, Tacoma, Wash. Secretary-Treasurer, Jay W. Stevens, Merchants Exchange Building, San Francisco, Cal.

Sept. 8-11—OHIO STATE FIRE SCHOOL. Annual meeting, Port Columbus Naval Air Station, Columbus, Ohio. Director, Foss H. Gragg, Deputy State Fire Marshal, 607 Wyandotte Building, Columbus 15, Ohio.

Sept. 8-11—MARYLAND SHORT COURSE FOR FIREMEN. Annual meeting, University of Maryland, College Park, Md. Director, Robert C. Byrus, Fire Service Extension, University of Maryland, College Park, Md.

Sept. 11-12—JEFFERSON COUNTY VOLUNTEER FIREMEN'S ASSOCIATION. Annual meeting and tournament, Adams, N. Y. Secretary, Jack Farrell, 513 Lakeview Drive, Dexter, N. Y.

Sept. 14—CANADIAN ASSOCIATION OF FIRE CHIEFS. Annual meeting, Toronto, Ont. Secretary-Treasurer, Chief Allan Clark, Fire Headquarters, Lakefield, Ont.

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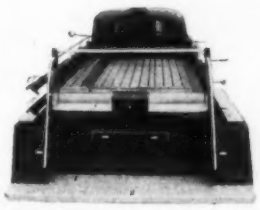

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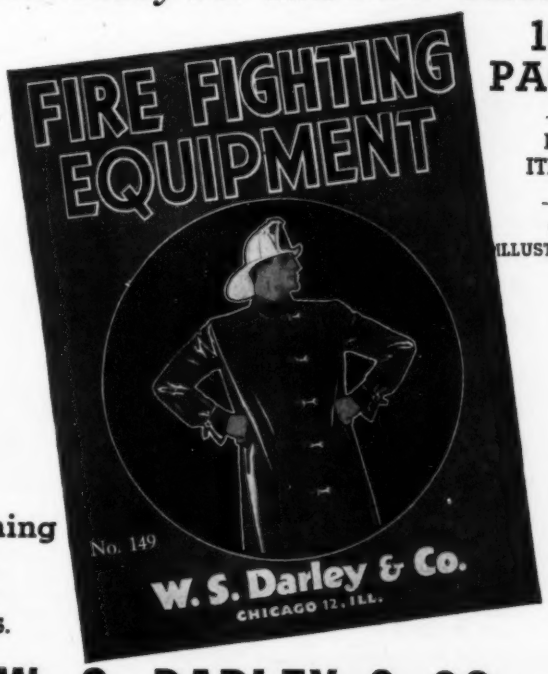

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Carries Electrical loads to its full capacity without allowing the Battery to discharge this allowing electrical checks to be made indoors without starting the engine.

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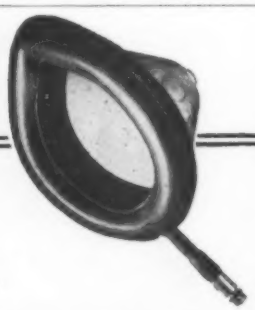

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Convention Dates

Sept. 14—GREAT LAKES ASSOCIATION OF FIRE CHIEFS. Annual meeting, Toronto, Ont. Secretary-Treasurer, Chief Charles A. Delaney, Lakewood, Ohio.

Sept. 14-18—VIRGINIA STATE FIRE SCHOOL Annual meeting, Number 9 Fire House, Norfolk, Va. For information, contact Fire Marshal Clay A. Easterly, Director, P. O. Box 1113, Martinsville, Va.

Sept. 15-18—INTERNATIONAL ASSOCIATION OF FIRE CHIEFS. Annual meeting, Toronto, Ont. Secretary-Treasurer, Chief Daniel B. Tierney, 8 Robbins Road, Arlington 74, Mass. General Manager, James E. Jagger, Hotel Martinique, Broadway and 32nd Street, New York 1, N. Y.

Sept. 26-27—FIRE CHIEFS SCHOOL. Annual meeting, Old Forge, N. Y. For information, write W. Lewis Armstrong, P. O. Box 186, Old Forge, N. Y.

Oct. 5-8—INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION. Annual meeting, Columbus, Ohio. Secretary, Irvin Shulsinger, International Municipal Signal Association, 130 West 42nd Street, New York 36, N. Y.

Oct. 20-23—KANSAS STATE FIRE SCHOOL. Annual meeting, University of Kansas, Hutchinson, Kans. Director, Gerald Pearson, Director Extension Classes, 111 Fraser Hall, University of Kansas, Lawrence, Kans.

News of the Manufacturers

(*Continued from page* 490)

spare cylinder extends this life to 30 minutes where required.

In announcing the new product, which incidentally had its first demonstration at the New Haven Training Grounds on May 23rd last, the manufacturers express the confident hope that this new unit will not only aid in reducing casualties due to smoke poisoning and other breathing hazards, but will also help cut "asphyxiation panic"—an affliction of some fire fighters operating without breathing apparatus in dangerous atmospheres.

Rooney Treasurer of MSA

Election of C. P. Rooney as treasurer of Mine Safety Appliances Company, Pittsburgh, was announced recently by J. T. Ryan, Jr., president.

C. P. Rooney

Associated with the company since 1927, Mr. Rooney is a graduate of Duquesne University with a B.S. degree in Economics. He received his Certified Public Accountant degree in Pennsylvania in 1932.

He was elected assistant secretary of the company in 1940 and assistant treasurer in 1948. He also is a director of Callery Chemical Company, an MSA subsidiary, and of Mine Safety Appliances Company of Canada, Ltd.

Improved Memco Aerial Ladder Announced. The De-Lux Neon Mfg. Co. of Oklahoma City 3, Okla., has announced a new aerial ladder incorporating major improvements. As shown in the illustration above, hand rails have been added to all three sections of the new Memco ladder. In addition, the ladder part of the assembly has been strengthened considerably.

A New Ratchet Hydrant Wrench

The conventional hydrant wrench, like so many other fire department tools, is being streamlined. Fire Chief Roy Turton of Shelburne Falls, Mass., and James R. Shea, of South Hadley, sales representative of the American-LaFrance-Foamite Corp. have developed the "S T Wrench" which departments that have used it claim is a boon to fire fighters.

The ratchet feature is an asset where hydrants are too close to utility poles, walls or other obstructions.

The new wrench requires only a 4-in. swing to open or close a hydrant, or remove a 2½-in. discharge cap. Also incorporated into the head is a socket for opening and closing gates of gated hydrants by merely inverting the head of the wrench.

The pentagon heads, which are replaceable, come in three sizes, 1¼-in., 1½-in. and 1¾-in. with adjustable features to fit all hydrant pentagons from smallest to largest.

The "S T" Ratchet Hydrant Wrench will be exhibited at the New England Fire Chiefs' Conference at Wentworth, June 22 through 25.

Phoenix Home Inspections

In 1952 the Phoenix, Ariz., Fire Department began a home inspection program. In its first year the number of home fires averaged 4.15 per 1,000 persons, compared with 5.27 fires per 1,000 persons in the previous year.

The program calls for fire fighters to check fire hazards in all residential buildings except hotels, rooming houses and large apartment houses, which are inspected periodically by the fire prevention bureau of the department.

Inspectors travel the various fire station districts with apparatus and are at all times in service, due to the two-way radio on each rig.

It is expected that the number of home inspections will be doubled for the current year with consequent further reduction in home fires and fire losses.

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We Strive To Save Lives, Too!

Through continuous research and in cooperation with fire and safety officials, we have perfected a dependable home fire alarm system. It is a great satisfaction to know that our efforts have been responsible for saving many lives in fires.

Information about the Fire-Lite Home Fire Alarm System can be obtained by writing to us.

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COMBINATION EXPANDER
6 FEATURES IN 1

Expander for Hose Sizes from ¾" to 3"
Greater Expansion Greater Economy
Easy to operate
Segments Furnished with Adjustable Spacer
Visual Indicator to Determine Amount of Expansion
BE PREPARED FOR ANY EMERGENCY
THE COST IS LOW
Send for Illustrated Bulletin
Dayton Fire Equipment Co.
1242-48 W. 2nd St., Dayton 7, Ohio

Buffalo, N. Y., Tries New Firebox Colors

Harold Becker, Buffalo, N. Y., Fire Commissioner, recently announced a program aimed at regaining the city's Class 2 fire insurance rating by the National Board of Fire Underwriters.

Tests were being made with white and yellow paints to determine which was more effective in making Buffalo's 1400 fire alarm boxes more conspicuous. In its November, 1952, report, the national board assessed the city nine demerit points for not having its fireboxes sufficiently conspicuous.

The board's report dropped Buffalo to a Class 3 rating.

The box at Main and Mohawk Sts., in Buffalo's downtown section, was painted white and a box nearby at Main between Chippewa and Tupper Sts., was painted yellow. Commissioner Becker said the traditional red color of the boxes would be changed and the paint sprinkled with reflector beads.

Commissioner Becker said the preferred method of making boxes more conspicuous would be to place lights over them but he estimated this would cost an initial outlay of at least $100,000 and result in high maintenance costs under the department's present economy budget.

Plans call for correction of national board findings until 169 demerit points are removed. Only 110 are required for re-inspection.

The city's chief fire officer said he plans to petition for re-inspection by the National Board in July and that it might be done in October.

Other improvements include reconstruction and modernization of the Fireboat W. S. Grattan. The national board assessed 18 points for it. The Grattan was stripped of some of its hose and equipment at its Michigan and Ohio Sts. slip and towed by a tug to the Sturgeon Bay Dry Dock & Shipbuilding Co., Sturgeon Bay, Wis., for rehabilitation and conversion to diesel operation.

Commissioner Becker said the department's new amphibian fire-fighting craft and a Coast Guard cutter will handle harbor fires during the Grattan's absence.

The national board docked the department 29 points on its training program. Commissioner Becker said construction of a long-planned fire college and drill tower will start late this Summer.

Other steps planned and the number of demerit points they will remove are:

1. A new volatile-liquid code, now awaiting Common Council action. (78).
2. Redistribution of fire alarm boxes. (13).
3. Inclusion of more fire equipment such as gas masks, door openers, bailing hooks and other small equipment on trucks. (20).

Commissioner Becker said he also hopes to remove demerit points through improvements in the high-pressure water system.

The chief added that he soon hopes to have all fire hydrants wrapped with a band of reflecting adhesive tape, such as that used on auto bumpers to make them luminous at night. He explained that although firemen know the approximate location of hydrants they are not sure of exact locations.

Sometimes, he said, they pass a hydrant and lose time laying additional hose.

PAUL C. DITZEL.

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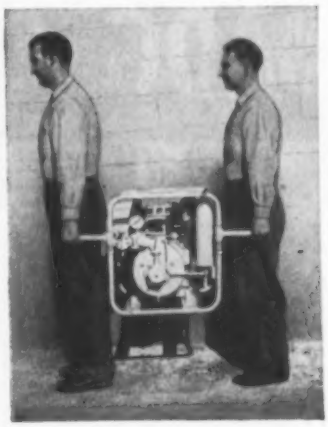
HALE Type FZZ

Fine for Re-laying to Major Pumper . . .

Easily Carried by 2 Men



Chief Leon Arnold of Newellton, La., Writes . . .

We have received from you your portable Pump, Type FZZ, which we are thoroughly satisfied with. We have only had to use it once since our purchase in September of last year, but it did a big pump job for 1½ hours through a 300-ft. line of 2½-inch hose branching off in a "Y" to two 1½-inch lines, 150 ft. each.

We carry this unit on our 500-gallon pumper to use in places where we cannot get near enough to water. Two men can easily carry it any place.

We recommend the Hale FZZ Portable Pump for any Fire Department.

Below—FZZ relaying from pond to Major Pumper.

The Hale Type FZZ portable fire pumping unit pictured at top can be easily carried by two men to source of water which truck cannot reach, for refilling booster tank or for fighting fire direct. Unit is also available mounted on two truck-type wheels or on rubber-cushioned steel channels.

The unit can be mounted on virtually any apparatus, making it possible to fight fire while apparatus is in motion, using booster tank for source of water.

Capacity of FZZ is 60 G.P.M. at 90 lbs. pressure; 150 G.P.M. at 30 lbs. pressure. Provides two capable fire streams through 1¼-inch hose lines, using ½-inch nozzles. **Note:** Discharge Adapter can be supplied for use with 2½-inch hose.

Ask for demonstration; no Obligation.

Write today for FZZ Folder to:

HALE FIRE PUMP COMPANY

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Fire Pumps in All Standard Capacities

Obituaries

Frank Cushman, Educator, Dead

Frank Cushman, 73, a national authority in the field of vocational education, and who was one of the first to cooperate actively with the fire service in firemanship training, died April 27, 1953, at his home in Long Beach, Calif.

While with the Federal Board of Vocational Education in Washington, he undertook the preparation of the Board's Bulletin 155 entitled "Fire Fighting, an analysis of the fireman's job with suggestions as to the organization and operation of training." This, was the first serious study of the fireman's job and was inspired by the International Association of Fire Chiefs through the then chairman of its educational committee, Chief Ralph Scott of Los Angeles.

After his retirement from government service in 1946 Cushman continued as consultant in vocational education in the U. S. Office of Education. He is survived by a son, a daughter, a brother and five grandchildren.

Thanks, IRVING JOHNSON.

Chief Gisborne of Sound Beach Dies

One of New England's most colorful fire chiefs, Francis R. Gisborne, for 16 years head of the Sound Beach, Conn., died May 16 at his home in Old Greenwich. He was 76.

"A fireman's fireman" as he was called by all who knew him, Chief Gisborne joined the Sound Beach Fire Department in 1909 and became chief in 1922. He was a Town employe with the Greenwich Sewer Department from 1925 until he retired in September, 1948.

On June 12, 1952, Chief Gisborne was presented with the Achievement Award of the Old Greenwich Lions Club for his service to the community and last October he was honored by the Sound Beach Fire Department at its annual inspection. He died just before he was to receive further honors from the Town of Greenwich.

Chief Gisborne participated in the development of the Westchester, N. Y., Fire Chiefs Emergency Plan and later the Fairfield County, Conn., Plan. He was an honorary life member of the New England Association of Fire Chiefs, the Connecticut State Firemen's Association, the Fairfield County Fire Chiefs Emergency Plan and the Greenwich Volunteer Firemen's Association.

Sherwood Brockwell Dead

As this issue goes to press, word has been received of the passing on June 2 of Sherwood Brockwell, Fire Marshal of the State of North Carolina. He was a leader in firemanic education and as a result of his activities, North Carolina cities, both large and small, boast outstandingly efficient fire departments.

Chief A. F. Zay Dead

Chief Alfred F. Zay, head of the River Forest, Ill. fire department for the past 15 years was killed March 25 near Devalles, Mexico, about 400 miles south of the border when his automobile was struck head-on by a truck driven by a Mexican who was driving on the wrong side of the mountain road. Mrs. Zay, who had accompanied her husband on a month's tour of Mexico and Guatemala, was seriously injured.

Private services were held in Cicero, Ill. March 30 and a community memorial service April 2 at the River Forest Methodist church, which was attended by numerous fire chiefs from the Chicago suburban area and elsewhere in Illinois. Chief Zay was the first secretary of the Illinois Fire Chiefs Association and one of the principal organizers of the new group for which he gave much time and effort.

Lieutenant Herman Flohr was subsequently named named to succeed Chief Zay as chief of department at River Forest.

Chief Geo. Wallace Dead

One of the Pacific Coast's oldest and best liked fire chiefs, George Wallace, of Modesto, Calif., was laid to rest with impressive services, following his death in April. Over 50 California State fire chiefs were in attendance.

Chief Wallace was the first paid fireman in the City of Modesto and was its chief for more than 30 years. Upon his retirement some years ago, the Chief received unusual honors. The Mayor proclaimed the day a legal holiday in Modesto; the Chief was showered with gifts, including a new automobile.

For years he was one of the leading members of the Pacific Coast Chiefs and, in 1918, he headed the association. His last request was carried out: that his last ride be in the old original Seagrave (1919) truck.

Chief George Wallace of Modesto laid to rest. Local and visiting fire chiefs and other dignitaries observe the veteran chief's request that he have his last ride in the department's 1919 fire rig.

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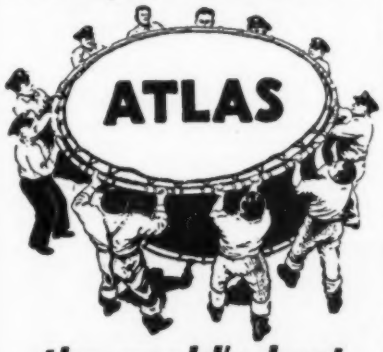

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Sidelights on Britain's Fire Box Headache

Some further information bearing upon the controversial subject of telephone vs. street fire alarm box has come from Britain where the problem is being discussed from every angle.

The latest data are extracted from an item appearing in the April, 1953, issue of "Fire," a journal of the British Fire Service, and reads as follows:

"9-9-9—The Surrey borough of Mitcham has lost its closed circuit fire alarm system and the public has been told to dial 999. Mitcham, however, is woefully short of telephone kiosks and, so far, none of the 15 new ones which we were told would replace our street fire alarms has been erected. We are informed that the GPO is willing to install four in the, as we assume, sweet bye-and-bye.

"At the March meeting of our borough council, Ald. Pearce, chairman of the general purposes committee, said that something should be done in regard to a suggested inquiry into the possibility of discovering an alternative to the 999 system. The committee, he added, regretted deeply a recent fatal fire, and would discuss at its next meeting the whole question of quick and dependable means of calling the county fire brigade.

"This is some measure of consolation to Mitcham folk who want to know why Glasgow, Liverpool, Birmingham, Manchester and Southend are extending their street fire alarms, which are on the same principle as ours was, and Surrey and London abolishing theirs. I have not met any member of the public in Surrey who has been in favor of the 999 system replacing the street fire alarms, —Mitchamite."

Boat Motor Explodes in Kitchen

Fire which flashed through a west side New York City apartment, April 23rd, last, brought death to one man, critical injuries to a second and a mystery as to the fate of the third. A fourth man escaped. The men were tinkering with a gasoline-fueled outboard motor in the kitchen of a three-room, fourth-floor flat on W. 49th Street, Manhattan, when "everything went up in flames."

Two men managed to make their way onto the fire escape, one of them suffering second and third degree burns. A third man reportedly jumped into a ventilating shaft and was killed. A fourth man, believed to be injured, mysteriously disappeared and was being sought by police.

The fire enveloped the apartment and drove most of the families of the 20-family structure into the street. Firemen, however, held the fire to the apartment in which it originated.

Additional Exhibitors at Toronto I.A.F.C. Convention

Seven more names have been added to the list of manufacturers who are exhibiting at the Toronto meeting of the International Association of Fire Chiefs, giving a total to date of forty-four. These include the following:

Clifford B. Hannay & Sons, Inc.
Pyrene Manufacturing Company of Canada, Ltd.
The Gamewell Company
Rockwood Sprinkler Company
Levitt-Safety Limited (Canada)
Superior American Fire Alarm Company
The General Fireguard Corporation, Ltd. (Canada)

A ROOF MOUNTED CLEARWAY

It's a clearway in all directions giving inexpensive all around protection for fire, police and utility departments.

Corning Fresnel Lens, the Lighthouse lens multiplies light in a flat horizontal 360° beam.

ARGUSLITE CO.
BLUE RIDGE SUMMIT, PENNA.

ACME...the Gas Mask that checks . . .

"HUFF AND PUFF"

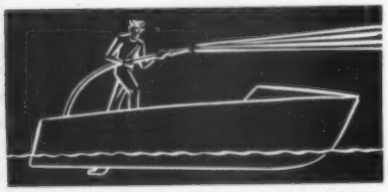
You can wear the Acme Full-Vision Mask two or three times as long as others without worrying about "huff and puff." An exclusive Acme feature, the Dead Air Check Valve, actually limits the amount of carbon dioxide the wearer rebreathes and thus helps to check breathing difficulties at their source.

This is another Acme innovation that proves that protection can be comfortable.

Write for the complete story on Acme Gas Masks for all fire fighting hazards.

ACME PROTECTION EQUIPMENT CO.
3037 West Lake St., Chicago 12, Illinois

AN *Announcement* OF TREMENDOUS IMPORTANCE TO FIRE FIGHTERS



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AVAILABLE WITH KERMATH 61 H.P. SEA-JEEP ENGINE

This amazing new propulsion unit has been developed to propel craft without a propeller or rudder by taking water from outside the boat and discharging it as a high speed jet stream under the stern. A simple connection provides a high or low pressure water stream for fire fighting using standard hose. A Hydrojet powered boat operates efficiently in shallow water, in silt, debris, and in areas where ordinary fireboats cannot operate.

For further details and specifications write to—

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Coat in photograph is trimmed in Scotchlite . . . "lights up like a lamp" when light hits it—your protection in dark streets and smoke filled buildings.

We have free literature for you.

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JANESVILLE, WISCONSIN

Persons in the News

Chief Roy Marquart Retires

Fire Chief Roy Marquart is retiring as head of the Kankakee, Ill., Fire Department after more than twenty years of service.

Chief Marquart joined the fire department in 1917 and, in 1919, when twenty-two years old, was appointed chief, becoming the youngest in the state of Illinois. The following year he was appointed special investigator for the state fire marshal's office, which made him the youngest deputy fire marshal in the state.

He returned to the Kankakee department in 1935 after twelve years with the state and has served as chief ever since. He comes from a firemen's family. His father, a Chicago fireman, was killed only two months after Chief Marquart's birth in 1895. John Marquart, son of the Chief, now is a captain on the Kankakee Fire Department. Chief Marquart was largely responsible for establishing the Kankakee Valley Firemen's Association, in 1950, an organization of thirty-seven professional and volunteer fire departments and seventeen industrial fire departments. He has been its President since its founding.

The retiring fire chief is a member of the International Association of Fire Chiefs and of the executive board of the Illinois Firemen's Association.

Chaplain Morton Leaves Elmendorf Base

Chaplain (Major) Norris T. Morton who, besides looking after the spiritual well-being of the 5005th Hospital Group at the Elmendorf Air Force Base, Alaska, is a student in fire protection and a contributor to this Journal, conducted special services at the Hospital Chapel on Sunday, April 26, in honor of Alaska Firemen. The services were by way of being a farewell from Chaplain Morton to his friends because after filling the post of hospital chaplain since 1951, he is due to rotate stateside in June, 1953, when he will be assigned to Edwards Air Base, Edwards, Calif.

The invited guests at his service included Fire Departments of the US Air Force, US Army, City of Anchorage, Alaskan Railroad and the Spenard Volunteers. The response of the chief officers was outstanding. The subject of the chaplain's sermon was "Popularity or Principle."

Prior to his assignment at Anchorage, Chaplain Morton was stationed at Bolling Air Force Base, Washington, D. C. He was also the Fire Department Chaplain in the nation's Capitol for three years. He holds honorary membership in many departments in this country and abroad.

R. F. Coley Chief at Milford, Conn.

Fire Marshal Richard F. Coley, 49, a member of the regular Fire Department at Milford, Conn., for the past 26 years, has been named Chief of Department to succeed Ernest I. Cox, who retired on May 6.

Richard F. Coley

Chief Coley became a Battalion Chief in 1946 and was appointed Fire Marshal later in the same year. He also served the Department as Assistant Drillmaster. He is treasurer of the State Fire Marshal's Association and at present holds the office of State Vice-

Firemen's Sunday Service, Elmendorf Air Force Base, Alaska

Front row, left to right: Lt. David E. Wood, Fire Marshal, Elmendorf Air Force Base; Chief George Vien, Base Fire Department; Chief Samuel H. Huxley, U. S. Army Fire Department; Chief George F. Burns, City of Anchorage Fire Department; Assistant Chief William N. Niererhauser, U. S. Army Fire Department; Assistant Chief Carlton C. Ford, Base Fire Department.

Rear row, left to right: Chief Clifton Webb, Alaskan Railroad Fire Department; Assistant Chief James C. Robertson, U. S. Army Fire Department; Richard C. Smith, USURAL Fire Marshal; Paul A. Cunningham, Fire Marshal, Alaskan Air Command; Chaplain Norris T. Morton, Hospital Chaplain, 5005th Hospital Group; Lt. William D. Ellermeier, Hospital Fire Marshal; Chief William Tynan, USURAL Fire Prevention Engineer; Assistant Chief Clifford G. Hainer, Base Fire Department.

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president of the International Association of Fire Chief.

In other appointments, Battalion Chief Leonard H. Botsford was advanced to Fire Marshal to succeed Chief Coley, and James J. Connor, was named Battalion Chief, filling Marshal Botsford's post, Mr. Botsford has been a member of the Milford Fire Department since December, 1930, and Battalion Chief Connor entered the Department in December, 1926.

TOM MAGNER.

Chief John H. Alderson Honored By Junior Chamber

Chief Engineer John H. Alderson of the Los Angeles Fire Department recently was honored by the city's Junior Chamber of Commerce for his 30 years of service to the city.

Thirteen of the years were spent as the city's top fire official.

Robert Van Buskirk, president of the JC, presented Chief Alderson with a plaque during a luncheon in the Chamber of Commerce board of directors room.

Chief Alderson, a former Rhodes Scholar, trained for the ministry. He joined the Los Angeles Fire Department in 1923 and successively became captain, battalion chief, and was appointed chief engineer by Mayor Fletcher Bowron in May of 1940.

Chief Alderson was instrumental in starting the city's Junior Fire Department, sponsored by the Junior Chamber. The Junior Fire Department teaches more than 50,000 Southern California school children the elements of fire prevention and control.

William H. Landon is chairman of the Junior Chamber Fire Prevention Committee.

PAUL C. DITZEL.

Chief Henry Chase Retires

Nearly fifty years ago a New England Yankee found himself in Miami, Fla., where for reasons somewhat obscure, he became a part of the local fire depart-

Chief Henry R. Chase

ment. In fact, according to Henry R. Chase, who was that young man, he *was* the fire department (aided and abetted by two horses and what passed for a piece of fire apparatus.)

Last month, May 15 in fact, that young man, now no older in spirit and enterprise, but grayer in service, retired

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formally as head of the Miami Fire Department.

The Yankee accent long ago was replaced by the Southern drawl, and the then $600-a-year fire department has grown to a "business" of about two and a quarter million dollars, known, admired and copied throughout the nation.

Such is the saga of Fire Chief Henry R. Chase, past-president of the International Association of Fire Chiefs, and an officer in many other fire associations as well.

Henry Chase, who become Chief of the Miami Fire Department, in 1909, served until 1918, when he forsook the fire service for the job of sheriff of Dade County. He returned to fighting fires in Miami in 1935. His alert mind, coupled with his willingness to help in any way that would further the cause of fire suppression, established him as a leader in fire service education.

That leadership was shown in his insistence upon advanced training not only in his own department, but throughout the South. He was active in the creation of the Florida Fire College and his willingness to "try anything" if it benefitted the fire service brought him to the forefront as an exponent of water fog, wet water, pre-connected small lines, and other factors now recognized as essential to fast, coordinated fire attack.

Magnesium in Trailer Makes Stubborn Fire

Magnesium fires are not strange to most municipal fire fighters. The more experienced they are with this tricky metal, the healthier their respect for it.

Take the members of the Houston Fire Department, and the incident of last February for example. This was a bit of a problem—one for which no apparent answer was in the handbooks and manuals on fire extinguishing. This wasn't just a magnesium fire, it was a magnesium fire in a refrigerator truck trailer, of all things. A sort of a traveling magnesium blaze.

According to the press fire fighters used all the dry chemical on their trucks, as well as 1,100 lbs. of foam powder and unspecified quantities of carbon dioxide, to gain control of this particular fire.

Three firemen received burns on their hands trying to save the refrigerator trailer. A workman was scalded when a companion threw a bucket of water on the burning magnesium. And six pieces of equipment and their crews, under District 6 Chief P. J. Lowth, had themselves a bit of a time before they called it a day.

The fire occurred at the Fruehauf Trailer Co. on Broadway, a bit after 9:00 A.M. The magnesium-containing trailer, 33 ft. long, was one of 18 or 20 trailers inside the brick and cement building. A man was working nearby with a cutting torch—when another workman noticed the magnesium floor of the trailer afire, and shouted the alarm.

Another employe ran up, grabbed a pail of water and threw it on the burning metal. A small explosion resulted and a workman was spattered with molten magnesium. Then the firemen were called.

Unable to knock out the fire with orthodox methods, they had the trailer towed outside the building with two small tractors. Then they went to work on it. They spent 55 minutes and used up 1,100 lbs. of foam in getting the fire out. About half of the trailer was reported burned.

New Jersey Firemen Study Mutual Aid Plans

Spurred by an epidemic of serious fires in their area, firemen of a number of New Jersey communities lying in Bergen County near the New York State boundary have instituted a study of existing mutual aid plans and programs, principally those in New York State. Most of the personnel are members of the Pascack Valley Firemen's Association and the New Jersey & New York Volunteer Firemen's Association.

On April 15th, a busload of volunteers from the communities of Westwood, River Vale, Old Tappan, Township of Washington, Emerson and Hillsdale, all members of the Pascack Valley group, journeyed across the Hudson River to inspect the County Fire Control Center of the Fire Chiefs Emergency Plan, in White Plains. Later they rode to Montrose, N. Y., to be the guests of the Westchester Plan at its monthly meeting and dinner.

Officers of the Pascack Valley Fire Association are: D. Faletti, president; R. Felton, vice-president; C. Eisenhardt, treasurer, and Jos. Gillibrand, secretary. Their guide on the trip was Eugene H. Spender, Wycoff, N. J., financial secretary of the New Jersey-New York Association.

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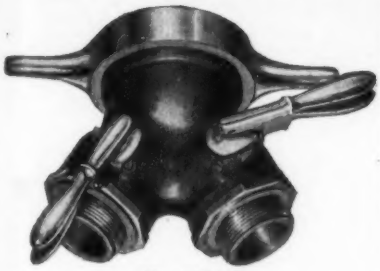

Fig. 164AN

4½" swivel female x two 2½" male Gated Siamese. Quick opening, ¼ turn valves.

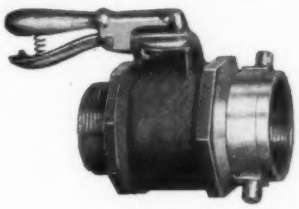

Fig. 163

Made either Right Hand or Left Hand 2½" male x female, gate valve.

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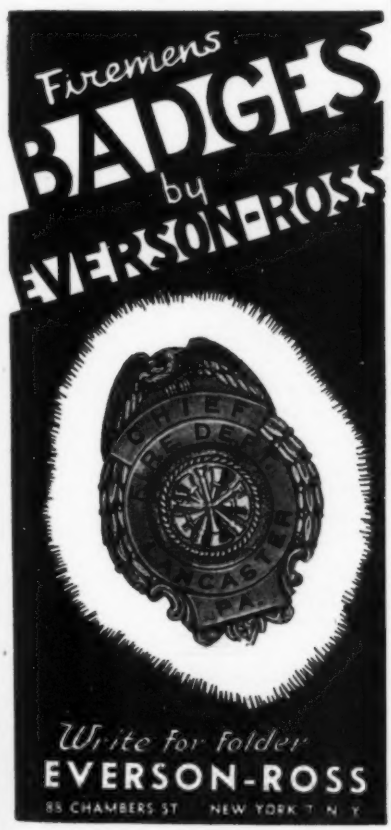

Book Shelf

OPERATING FIRE DEPARTMENT PUMPERS. By Warren Y. Kimball, Pub. by National Fire Protection Association, 60 Batterymarch St., Boston 10, Mass.; pocket size, 146 pages, cloth binding. Price $3.50 (paper bound, $2.50).

Most of the text of this manual consists of material published on the subject during the past several years in NFPA's Fireman Magazine, the object being to provide material not readily available in pump manufacturers' manuals and other texts dealing with the mechanical equipment used in pumping. The publisher states it is not a maintenance manual nor does it deal with specific makes of pumps; rather it attempts to include good practice procedures and information useful to pump operators.

The presentation of the material follows an outline developed by a sub-committee of the NFPA Committee on Firemen's Training which was charged with the development of a training guide on pump operation.

The context is sub-divided into some 21 parts, with numerous graphic diagrams and illustrations. Included, also, are a number of more important fire stream tables.

Among the topics included are: Selecting Size of a New Pumper; Taking Delivery; Choosing Pumper Layouts; Putting Pump in Service; Getting Water; Charging Hose Lines; Maintaining Pressure; Operating a Pumper; Getting the Most From the Pumper; Determining Friction Loss and Pump Pressure; Pumper Layouts; Relay Pumping; Maintaining Pumpers, and Data on Flows, Fire Streams and Hydrant Performance.

April Fire Loss

Estimated fire losses in the United States during April amounted to $67,362,000, it was reported by the National Board of Fire Underwriters.

According to Lewis A. Vincent, NBFU's general manager, this $67,362,000 loss represents a decrease of 19.3 per cent from losses of $83,471,000 reported for last March (1953) and is approximately the same as losses for April, 1952, which amounted to $67,380,000.

Losses for the first four months of 1953 now total $300,198,000, an increase of 5.8 per cent over the first four months of 1952, when they amounted to $283,714,000.

These estimated losses include an allowance for uninsured and unreported losses.

Drinks and Smokes in a Good Cause

The City of Faribault, Minn., recently issued a check in the amount of $17,481.36 to the Faribault Fire Department which went to pay for a brand new, 1000 GPM cab job pumper to the delight of the department.

The sum is the City's share of state liquor and cigarette tax collections, which normally average around $30,000 per year. Each year the City Council sets aside a portion of that revenue for some worthy project. In March, it was to pay for the new fully equipped pumper.

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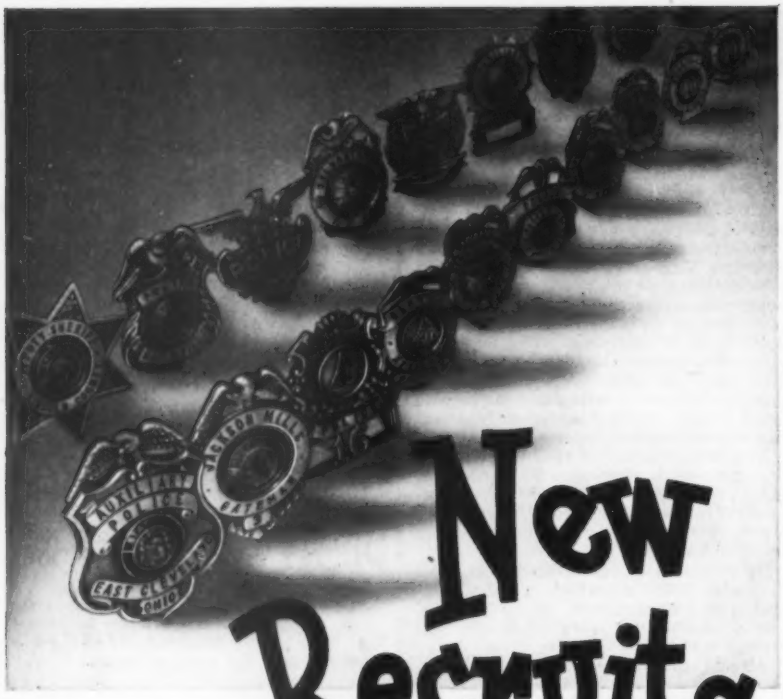

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ADVERTISING INDEX

FIRE ENGINEERING
JUNE, 1953

	Page
Acme Protection Equipment Co.	523
Akron Brass Mfg. Co.	459
American District Telegraph Co.	460
American Fire Apparatus Co.	448
American Fire Equipment Co.	516
American LaFrance-Foamite Corp.	454
American Rubber Mfg. Co.	496
Ansul Chemical Co., Fire Ext. Div.	*Back Cover*
Arguslite Co.	523
Army's Fire Service	456
Atlas Safety Equipment Co., Inc.	523
Attwood Brass Works, Inc.	518
Audio Equipment Co., Inc.	525
Bar-Way Mfg. Co.	502
Bean Div., John; Food Machinery & Chemical Corp.	465
Bete Fog Nozzle Inc.	512
Biersach & Niedermeyer Co.	500
Blackinton & Co., Inc., V. H.	528
Body Guard Mfg. Co.	527
Braxmar Co., C. G.	521
Buckeye Iron & Brass Works	509
Bullard Co., E. D.	498
C-O-Two Fire Equipment Co.	466
Cairns & Bro.	494
C. D. Pike & Fire Hook Mfg. Corp.	506
Chesebrough Mfg. Co.	511
Circul-Air Corp.	525
Cycle-Flo Co.	458
Daniels, Inc., C. R.	517
Darley & Co., W. S.	519
Dayton Fire Equipment Co.	521
E & J Manufacturing Co.	520
Elkhart Brass Mfg. Co., Inc.	450
Emerson Co., J. H.	*Inside Front Cover*
Eureka Fire Hose Div., U. S. Rubber Co.	491
Everson-Ross, Inc.	527
Fabric Fire Hose Co.	447
Federal Enterprises, Inc., Signal Div.	445
Fire-Lite Alarms	521
Fog Nozzle International, Div. of Akron Brass	459
Four Wheel Drive Auto Co.	451
Gamewell Co.	472
Globe Manufacturing Co.	512
Goodrich Co., B. F.	449
Hale Fire Pump Co.	510; 522
Halligan Tool Co.	518
Hannay & Son, Inc., Clifford B.	462
Homelite Corp.	470
Howe Fire Apparatus Co.	513
Industrial Safety Specialties Co.	508
International Bronze Tablet Co., Inc.	525
Janesville Apparel Co.	524
Kermath Manufacturing Co.	524
Kidde & Co., Inc., Walter	493
Koehler Mfg. Co., Inc.	523
La Marche Mfg. Co.	520
McCulloch Motors Corp.	463
McIntire Brass Works, F. N.	527
Marine Products Co.	509
Maxim Motor Co.	469
Memco Aerial Ladder Co.	527
Midwestern Mfg. Co.	468
Mine Safety Appliances Co.	453
Motorola, Inc.	467
National Foam System, Inc.	495
Oberdorfer Foundries, Inc.	515
Onan & Sons, Inc., D. W.	514
Pacific Marine Supply Co.	504
Pirsch & Sons Co., Peter	*Inside Back Cover*
Powhatan Brass & Iron Works	517
QRS Neon Corp.	515
Quaker Rubber Corp.	499
Radio Corp. of America	457
Republic Rubber Div., Lee Rubber & Tire Corp.	503
Rockwood Sprinkler Co.	455
Rowland Co.	519
Russell Uniform Co.	525
Scott Aviation Corp.	507
Seagrave Corp., The	471
Sireno Co., Inc.	511
Smith & Co., D. B.	501
Standard Safety Equipment Co.	514
Stephenson Corp.	513
Sterling Siren Fire Alarm Co., Inc.	516
Super-Vacuum Mfg. Co.	510
Universal Fire Apparatus Corp.	502
W-B Manufacturing Co.	505
Ward LaFrance Truck Corp.	461
Waterous Company	497
Waukesha Motor Co.	452

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